Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Cargill, Inc. – Eddyville, IA
Facility Location: 1 Cargill Drive, Eddyville, IA 52553
Air Quality Operating Permit Number: 06-TV-006
Expiration Date: October 16, 2011

EIQ Number: 92-0752
Facility File Number: 68-09-001

<u>Responsible Official</u>
Name: Jeff Fetterman
Title: Assistant Vice President/Plant Manager
Mailing Address: 1 Cargill Drive, Eddyville, IA 52553
Phone #: (641) 969-4511

<u>Permit Contact Person for the Facility</u>
Name: David E. Olson
Title: Environmental Coordinator
Mailing Address: 1 Cargill Drive, Eddyville, IA 52553
Phone #: (641) 969-3563

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

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Douglas A. Campbell, Supervisor of Air Operating Permits Section Date

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Abbreviations

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
^{o}F.....degrees Fahrenheit
EIQ.....emissions inventory questionnaire
gal/hr.....gallons per hour
gr./dscf.....grains per dry standard cubic foot
gr./100 cf.....grains per one hundred cubic feet
IAC.....Iowa Administrative Code
IDNR.....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NESHAP.....National Emission Standards for Hazardous Air Pollutants
NSPS.....new source performance standard
PEM.....Predictive Emissions Monitor
ppmv.....parts per million by volume
lb./hr.....pounds per hour
lb./MMBtu.....pounds per million British thermal units
SIC.....Standard Industrial Classification
scfm.....standard cubic feet per minute
TPY.....Tons per year
USEPA.....United States Environmental Protection Agency

<u>Pollutants</u>
PM.....particulate matter
PM_{10}.....particulate matter ten microns or less in diameter
SO_2.....sulfur dioxide
NO_x.....nitrogen oxides
VOC.....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Cargill, Inc – Eddyville, IA
Permit Number: 06-TV-006

Facility Description: Wet Corn Milling (SIC 2046)

Equipment List

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Process Group #1 - Utilities		
1	1.001	Coal Boiler #1
	1.002	Coal Boiler #2
	1.039	Coal Boiler #3
	1.052	Thermal Oxidizer #1
4	4.000	Ash Handling
30	30.000	Coal Bunker #1
31	31.000	Coal Bunker #2
32	32.000	Ash Silo
38	38.000	Coal Bunker #3
48	48.000	Coal Conveying Aspiration
51	51.000	Boiler #4
84	84.000	Boiler #5
	86.000	Boiler #6
105.049	105.049	Coal Dumping Shed, Coal Crusher
Process Group #2 - Refinery		
25	25.000	Chemical Tank Aspiration
27	27.000	Fructose Lime Addition
28	28.000	Fructose Precoat Unload
33	33.000	Fructose Check Filter Aid Addition
37	37.000	Carbon Furnace 1
56	56.000	Carbon Furnace 2
129	129.000	Refinery Hot Well Aspiration

Equipment List (cont.)

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Process Group #3 - Process		
7	7.000	Steephouse Conveying
8	8.000	Steephouse Aspiration 1
9	9.000	Millhouse Aspiration
55	55.000	Steephouse Aspiration 2
102	102.000	Mill Aspiration 2
105.013	105.013	Gluten Loadout Conveying 1
105.103	105.103	Gluten Flash Dryer Conveying 1
105.109	105.109	Gluten Flash Dryer Conveying 2
106	106.062	Gluten Flash Dryer 1
	106.901	Gluten Flash Dryer 2
119	119.000	Mill Aspiration 3
5	5.000	Corn Receiving 1
53	53.000	Corn and Solvent Extracted Meal Receiving 2
121	121.000	Process Control Backup Generator
Process Group #4 – Feed		
18	18.000	Feedhouse Aspiration
104	104.000	Fiber Flash Dryer
	104.134	Fiber Pneumatic Conveyor 1
	104.135	Fiber Pneumatic Conveyor 2
	104.136	CC/SEM Pneumatic Receiver
105.019	105.019	Feed Storage & Loadout/Rail
105.036	105.036	Feedhouse Conveyor Aspiration
105.040	105.014	Gluten Loadout Conveying 2
	105.040	Feedhouse Loadout/Truck
140	140.000	Sweet Feed Loadout

Equipment List (cont.)

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Process Group #5 – Germ		
67	67.000	Mineral Oil Scrubber
68	68.000	Building Aspiration
69	69.000	Extraction & DT Aspiration
70	70.000	Germ Storage Aspiration
105.090	105.090	Germ Meal Silo
107	107.058	Flaker/Conditioner
	107.059	Expeller Aspiration 1
	107.064	Cold Germ Transfer Receiver
	107.110	Expeller Aspiration 2
107	107.060	Germ Dryer/Cooler 1
133	133.000	Meal Conveyor
137	137.000	Sweet Feed SEM Silo Receiver
139	139.000	Germ Meal Dryer/Cooler
141	141.000	Corn Oil Tank
146	146.000	Dry Germ Silo
177	177.000	Corn and Dry Feed Ingredients Storage Bin
178	178.000	Corn and Dry Feed Ingredients Storage Bin
179	179.000	Pilot Plant Aspiration Unit
180	180.000	Pilot Plant Pellet Cooler
181	181.000	Pilot Plant Extraction Process
182	182.000	Pilot Plant Meal Cooler
183	183.000	Corn Meal Products Storage Bin
184	184.000	Corn Meal Products Storage Bin
185	185.000	Corn Meal Products Loadout
Process Group #6 – Ethanol		
77	77.000	RC Vent
78	78.000	Stillage Evaporator Vent
79	79.000	Ethanol Loadout
80	80.000	Ethanol Tank Farm
85	85.000	CO2 Vent

Equipment List (cont.)

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Process Group #7 – Citric Acid		
41	41.000	Lime/Precoat Weigh Hopper
44	44.000	Precoat Weigh Hopper
46	46.000	Acid Tank Aspiration
50	50.000	Lime Storage Silo
83	83.000	Citric Acid Solvent Extraction
108.047	108.047	Dry Crystal Handling Aspiration
108.081	108.081	Dry Crystal Cooler
108.082	108.082	Dry Crystal Handling Aspiration 2
118	118.000	LX Shutdown Tank
120	120.000	Citric Backup Generator
172	172	Acidulants Fermenter V
Process Group #8 – Dry Products		
91	91.000	Drying & Cooling 1
	91.117	Conditioning Dryer 1
93	93.000	Sifter Filter Receiver
94	94.000	Air Swept Hammermill
95	95.000	Dry Sweetener Silo
97	97.000	Bulk Bagger
98	98.000	Recycle Filter Receiver
127	127.000	Sifter Filter Receiver 2
Process Group #9 – Itaconic Acid		
122	122.000	Itaconic Acid Process - Flash Dryer
123	123.000	Itaconic Acid Storage Silo
124	124.000	Itaconic Acid Transfer Receiver
125	125.000	Lime Dissolve Tank Aspiration
126	126.000	Itaconic Acid Lime Storage Bin
130	130.000	BaCO3 Dissolve Tank Aspiration
131	131.000	Itaconic Acid Packaging Aspiration
132	132.000	Itaconic Acid Flash Cooler
Process Group #10 – GAP		
142	142	GAP Reactors
143	143	GAP Tank Farm
144	144	GAP Packaging
145	145	GAP Dryer
175	175	Biomass Dryer
176	176	GAP Packaging

Insignificant Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
IU 1	R&D Boiler (Natural Gas, 4.2 MMBtu/hr)
IU 2	Citric B-Line Vent
IU 3	Citric Drum Filters
IU 4	Corn Tank Humidity Vents
IU 5	Small Process Generator (<400 hp)
IU 6	Engineering Building Generator (<400 hp)
IU 7	Fire Pump Diesel Engine (<400 hp)
IU 8	Fire Pump Diesel Tank (550 gallons)

Insignificant Activities Equipment List (Small Unit Exemption)[1]

Insignificant Emission Unit Number	Insignificant Emission Unit Description
167	Bulk HCl Tank
169	Crax Aspiration
168	Sodium Bisulfite tank
170	Extraction feed Drag Vent
173	Fiber Receiving and Handling
174	Wet Fiber Storage Bin Fan
187	Soda Ash Unloading
186	Cooling Tower
Pending	Gluten Vac Pumps

[1] Emission Units qualify for Small Unit Exemption under 567 IAC 22.1(2)"w". Records shall be kept in accordance with 567 IAC 22.1(2)"w"(3).

II. Plant-Wide Conditions

Facility Name: Cargill, Inc. – Eddyville, IA
Permit Number: 06-TV-006

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: Five (5) years from permit issuance
Commencing on: October 17, 2006
Ending on: October 16, 2011

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Emission Limits
Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (state enforceable only)[1]:
No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.
For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

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[1] Pending approval into Iowa's State Implementation Plan (SIP), paragraph 567 IAC 23.3(2)"a" (as revised 7/21/1999) is considered *state enforceable only*.

Particulate Matter[2]:
The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.
Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

[2] Paragraph 567 IAC 23.3(2)"a" (prior to 7/21/1999) is the general particulate matter emission standard currently in the Iowa SIP.

Compliance Plan
The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Unless otherwise noted in Section III of this permit, Cargill, Inc, – Eddyville, IA is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, Cargill, Inc. – Eddyville, IA shall comply with such requirements in a timely manner.
Authority for Requirement: 567 IAC 22.108(15)

Consent Decree

On March 3, 2006, the Federal District Court in Minnesota entered a Consent Decree between Cargill, Incorporated, U.S. EPA, Iowa Department of Natural Resources and other participating agencies. U.S. et al v. Cargill, Incorporated Civil Action Number 05-2037JMR/FLN. This Consent Decree is hereby incorporated in its entirety into this permit. During the effective period of the Consent Decree, Cargill shall comply with the specific emission reduction requirements, emission limits, operating parameters, monitoring requirements, recordkeeping requirements, and any other applicable requirements specified in the Consent Decree and applicable to this facility. Where a conflict exists, these requirements shall supersede and control over corresponding terms and conditions of this permit. A copy of this Consent Decree is included as Appendix G of this permit.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

III. Emission Point-Specific Conditions

Facility Name: Cargill, Inc. – Eddyville, IA
Permit Number: **06-TV-006**

Process Group #1 – Utilities

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
1	1.001	Coal Boiler #1
	1.002	Coal Boiler #2
	1.039	Coal Boiler #3
	1.052	Thermal Oxidizer #1
4	4.000	Ash Handling
30	30.000	Coal Bunker #1
31	31.000	Coal Bunker #2
32	32.000	Ash Silo
38	38.000	Coal Bunker #3
48	48.000	Coal Conveying Aspiration
51	51.000	Boiler #4
84	84.000	Boiler #5
86	86.000	Boiler #6
105.049	105.049	Coal Dumping Shed, Coal Crusher

Emission Point ID Number: 1

Associated Equipment

Associated Emission Unit ID Numbers: 1.001, 1.002, 1.039, 1.052

Applicable Requirements

EU = Emission Unit

EU	EU Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity
1.001	Boiler #1	CE 1: Baghouse CE FGR: Flue Gas Recirculation	ME 1: Opacity, ME 2: NO_x, ME 3: CO	Coal	17 tons/hr
1.002	Boiler #2			Coal	17 tons/hr
1.039	Boiler #3			Coal	17 tons/hr
1.052	Thermal Oxidizer	CE 1.052: Incinerator		Natural Gas	60.00 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

EU	Opacity	PM-10	Particulate Matter	Sulfur Dioxide (SO_2)	Nitrogen Oxides (NO_x)	Carbon Monoxide (CO)	Authority for Requirement
1.001	40%	74.9 lb/hr	0.27 lb/MMBtu	2.5 lb/MMBtu	212.1 lb/hr, 929.6 ton/yr[1,2]	1,100 lb/hr[2]	83-A-086S7, 567 IAC 23.3(2)"d", 23.3(2)"b"
1.002							
1.039							
1.052		5.00 lb/hr	0.1 gr/scf	40.0 lb/hr	8.4 lb/hr	NA	90-A-085S2, 567 IAC 23.3(2)"d", 23.4(7)

[1] Total NO_x from boilers 1-3, 5 & 6 shall not exceed 212.1 lb/hr (929.6 tons per twelve-month rolling period).
[2] Averaging times for NO_x and CO emission limits shall be 30 days rolling (each).

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

EU's 1.001, 1.002, 1.039

Process throughput:

1. The allowable input rating for each boiler shall be 282.1 MMBtu/hr.

Control equipment parameters:

1. The flue gas recirculation systems shall be operated in a manner necessary to provide the required NO_x emission reductions while minimizing the increase of CO emissions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Records shall be kept of the coal sulfur percentage testing done on a quarterly basis, and Cargill shall notify the IDNR prior to combusting any coal with greater than 1.0% sulfur, by weight.

Authority for Requirement: Iowa DNR Construction Permit 83-A-086S7

Consent Decree:

These emission units are subject to SO_2, NO_x, and CO requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

EU 1.052

Process throughput:

1. Oxidizer capacity of 60.0 MMBtu/hr burning natural gas.
2. This process is a member of the Utilities Group. The processing rate of corn fiber shall be limited to the fiber from 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.
3. The thermal oxidizer shall be maintained according to manufacturer's specifications.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.
2. Estimate and record the steeping rate of corn in tons per day every day of operation.
3. Maintain a 30-day rolling average of the steeping rate of corn every day of operation.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 90-A-085S2

NESHAP:
Boilers #1, #2, and #3 are affected sources under 40 CFR 63 Subpart DDDDD – NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters. Per the definitions listed in Sec. 63.7575, these units fall into the existing "large solid fuel subcategory." The permittee shall comply with this subpart no later than September 13, 2007. The permittee shall also meet the notification requirements in Sec. 63.7545 according to the schedule in Sec. 63.7545 and in Subpart A of 40 CFR Part 63. (Note: Some of the notifications must be submitted before compliance with the emission limits and work practice standards are required. The initial notification was received on February 28, 2005)

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD
567 IAC 23.1(4)"dd"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Characteristics
Stack Height (feet): 225
Stack Diameter (inches): 106
Stack Exhaust Flow Rate (acfm): 460,000
Stack Temperature (^{o}F): 280
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permits 83-A-086S7, 90-A-085S2

Emission Unit Characteristics

EU	Temperature (ºF)	Flowrate (acfm)	Authority for Requirement
1.052	450	100,000	90-A-085S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

To be tested with all three boilers operating at or near full capacity.
Pollutant – Particulate Matter[(1)]
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM-10[(1)]
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 51, Appendix M, 201A with 202*
Authority for Requirement - 567 IAC 22.108(3)

* Or approved alternative

Pollutant – Sulfur Dioxide (SO_2)[(2)]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – Iowa DNR Construction Permit 83-A-086S7

[(1)] Cargill may choose to perform one stack test to account for both PM and PM-10 emissions. This one test will satisfy the testing requirements for both pollutants. If the test results show a violation of the applicable emission limits, then the emission point will be considered to be out of compliance for both pollutants. The test method used must be approved by the Department's stack testing personnel prior to testing.

[(2)] Required if sampled coal exceeds 1.0% sulfur by weight.

Continuous Emissions Monitoring:

Pollutant - Opacity
Operational Specifications - 40 CFR Part 60, Appendix F
Ongoing System Calibration/Quality Assurance - 40 CFR Part 60, Appendix F
Reporting & Record keeping - 567 IAC 25. Submit all reports and petitions required by 567 IAC 25 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring and the 40% opacity (visible emissions) limit
Authority for Requirement – Iowa DNR Construction Permits 83-A-086S6, 83-A-087S6, 87-A-004S6, 567 IAC 25.1(1), 567 IAC 23.3(2)"d", 567 IAC 22.108(4), and 567 IAC 22.108(15)

Pollutant – Nitrogen Oxides (NO_x)
Operational Specifications – 40 CFR Part 60, Appendix F
Date of Initial System Calibration and Quality Assurance – 2/23/96
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60, Appendix F
Reporting & Record keeping - 40 CFR 60.7, 567 IAC 25
Authority for Requirement - Iowa DNR Construction Permits 83-A-086S6, 83-A-087S6, 87-A-004S6, 567 IAC 25.1(1), 567 IAC 22.108(4), and 567 IAC 22.108(15)

Pollutant – Carbon Monoxide (CO)
Operational Specifications – 40 CFR Part 60, Appendix F
Date of Initial System Calibration and Quality Assurance – 10/28/97
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60, Appendix F
Reporting & Record keeping - 40 CFR 60.7, 567 IAC 25
Authority for Requirement - Iowa DNR Construction Permits 83-A-086S6, 83-A-087S6, 87-A-004S6, 567 IAC 25.1(1), 567 IAC 22.108(4), and 567 IAC 22.108(15)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: **For CE 1: Baghouse Only**

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Continuous
   - Visible emissions: The source has an Opacity Monitor. Operation of the opacity monitor will be conducted according to the manufacturer and regulatory requirements. Quarterly reports to DNR regarding opacity monitor operation will be submitted.
3. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - If a pressure drop gauge is installed, it will be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

(Required for CE FGR: Flue Gas Recirculation and CE 1.052: Incinerator)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 4

Associated Equipment

Associated Emission Unit ID Number: 4.000
Emissions Control Equipment ID Number: CE 4
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 4.000
Emission Unit Description: Ash Handling
Raw Material/Fuel: Ash
Rated Capacity: 51 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.349 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 83-A-089-S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 83-A-089-S3
567 IAC 23.3(2)"a"

[1] Standard is expressed as the average of 3 runs.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 78
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 2,150
Stack Temperature (^{o}F): 100
Discharge Type: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 83-A-089-S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 30

Associated Equipment

Associated Emission Unit ID Number: 30.000
Emissions Control Equipment ID Number: CE 30
Emissions Control Equipment Description: DCE Vokes Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 30.000
Emission Unit Description: Coal Bunker #1
Raw Material/Fuel: Coal
Rated Capacity: 17 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-115S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.129 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-115S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control equipment parameters:
1. The owner or operator of this source shall ensure that fabric filters are maintained according to manufacturer's specifications and instructions. The fabric filter shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-115S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 95
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (acfm): 1,000
Stack Temperature (^{o}F): 70
Discharge Type: Side Discharge
Authority for Requirement: Iowa DNR Construction Permit 83-A-115S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 31

Associated Equipment

Associated Emission Unit ID Number: 31.000
Emissions Control Equipment ID Number: CE 31
Emissions Control Equipment Description: DCE Vokes Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 31.000
Emission Unit Description: Coal Bunker #2
Raw Material/Fuel: Coal
Rated Capacity: 17 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-116S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.129 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-116S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control equipment parameters:
1. The owner or operator of this source shall ensure that fabric filters are maintained according to manufacturer's specifications and instructions. The fabric filter shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-116S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 95
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (acfm): 1,000
Stack Temperature (^{o}F): 70
Discharge Type: Side Discharge
Authority for Requirement: Iowa DNR Construction Permit 83-A-116S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 32

Associated Equipment

Associated Emission Unit ID Number: 32.000
Emissions Control Equipment ID Number: CE 32
Emissions Control Equipment Description: UCC Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 32.000
Emission Unit Description: Ash Silo
Raw Material/Fuel: Coal Ash
Rated Capacity: 51 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.008 lb/hr, 0.035 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-117S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control equipment parameters:
1. The owner or operator of this source shall ensure that fabric filters are maintained according to manufacturer's specifications and instructions. The fabric filter shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-117S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 78
Stack Diameter (inches): 5
Stack Exhaust Flow Rate (acfm): 215
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-117S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 38

Associated Equipment

Associated Emission Unit ID Number: 38.000
Emissions Control Equipment ID Number: CE 38
Emissions Control Equipment Description: DCE Vokes Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 38.000
Emission Unit Description: Coal Bunker #3
Raw Material/Fuel: Coal
Rated Capacity: 17 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 87-A-003S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.129 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 87-A-003S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control equipment parameters:
1. The owner or operator of this source shall ensure that fabric filters are maintained according to manufacturer's specifications and instructions. The fabric filter shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 87-A-003S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 95
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (acfm): 1,000
Stack Temperature (^{o}F): 70
Discharge Type: Side Discharge
Authority for Requirement: Iowa DNR Construction Permit 87-A-003S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 48

Associated Equipment

Associated Emission Unit ID Number: 48.000
Emissions Control Equipment ID Number: CE 48
Emissions Control Equipment Description: Howden 376 Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 48.000
Emission Unit Description: Coal Conveying Aspiration
Raw Material/Fuel: Coal
Rated Capacity: 51 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 88-A-133S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.60 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 88-A-133S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control equipment parameters:
1. The owner or operator of this source shall ensure that fabric filters are maintained according to manufacturer's specifications and instructions. The fabric filter shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 88-A-133S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 111
Stack Diameter (inches): 24
Stack Exhaust Flow Rate (acfm): 10,800
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 88-A-133S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – PM-10
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 51, Appendix M, 201A with 202*
Authority for Requirement - 567 IAC 22.108(3)

* Or approved alternative.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment:

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - If a pressure drop gauge is installed, it will be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
4. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 51

Associated Equipment

Associated Emission Unit ID Number: 51.000
Emissions Control Equipment ID Number: CE 51
Emissions Control Equipment Description: Low NO_x Burner, Flue Gas Recirculation
Continuous Emissions Monitors ID Numbers: ME 51: NO_x

Applicable Requirements

Emission Unit vented through this Emission Point: 51.000
Emission Unit Description: Boiler #4
Raw Material/Fuel: Natural Gas
Rated Capacity: 230 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 89-A-210S4
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 2.30 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 89-A-210S4

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 46.000 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 89-A-210S4

[2] Standard is expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. This boiler is limited to a maximum capacity of 230 MMBtu/hr.
2. This boiler shall only operate on natural gas.

Control equipment parameters:

1. The low NOx burner shall be maintained according to the manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 89-A-210S4

Consent Decree:

This emission unit is subject to NO_x requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

NESHAP:

This unit is an affected source under 40 CFR 63 Subpart DDDDD – NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters. According to Sec. 63.7506(b), existing large gaseous fuel and existing large liquid fuel units are only subject to the initial notification requirements in Sec. 63.9(b). As specified in Sec. 63.7545(b), an initial notification must be submitted no later than 120 days after November 12, 2004 (Received February 28, 2005). The initial notification must include the information listed in Sec. 63.7545(b)(1) and (b)(2), as applicable.

Authority for Requirement: 40 CFR 63 Subpart DDDDD
567 IAC 23.1(4)"dd"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 159
Stack Diameter (inches): 120
Stack Exhaust Flow Rate (acfm): 68,300
Stack Temperature (^oF): 300
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 89-A-210S4

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Continuous Emissions Monitoring:

Pollutant – Nitrogen Oxides (NO_x) with O_2 monitor
Operational Specifications – 40 CFR Part 60, Appendix B Performance Specifications 2 & 3, 40 CFR Part 60, Appendix F
Date of Initial System Calibration and Quality Assurance – 9/9/94
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60, Appendix F
Reporting & Record keeping - 40 CFR 60.7, 567 IAC 25
Authority for Requirement - Iowa DNR Construction Permit 89-A-210S3, 567 IAC 25.1(1), 567 IAC 22.108(4), and 567 IAC 22.108(15)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 84

Associated Equipment

Associated Emission Unit ID Number: 84.000, 86.000

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Monitoring Equipment	Rated Capacity
84.000	Boiler #5	CE 84: Low NO_x Burner, Flue Gas Recirculation	Natural Gas	ME 84: NO_x PEM	182.1 MMBtu/hr
86.000	Boiler #6	CE 86: Low NO_x Burner, Flue Gas Recirculation	Natural Gas		182.1 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 1.82 lb/hr (each)
Authority for Requirement: Iowa DNR Construction Permits 92-A-227S3, 92-A-228S3

Pollutant: Particulate Matter
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 18.20 lb/hr (each)[1]
Authority for Requirement: Iowa DNR Construction Permits 92-A-227S3, 92-A-228S3
567 IAC 23.1(2)"ccc"
40 CFR Part 60 Subpart Db

[1] Total NO_x emissions from boilers 1-3, 5 & 6 shall not exceed 212.1 lb/hr, based on a 30-day rolling average of CEM data.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. Natural Gas boiler capacity of each boiler shall not exceed 182.1 MMBtu/hr.
2. Each boiler shall only operate on natural gas.

Control equipment parameters:

1. Low NO_x burner shall be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.
2. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permits 92-A-227S3, 92-A-228S3

Consent Decree:

These emission units are subject to NO_x requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

NSPS:

1. These boilers are each subject to the provisions of 40 CFR Part 60 Subpart Db (Standards of Performance for Industrial/Commercial/Institutional Steam Generating Units) and Subpart A (General Provisions).

NESHAP:

Boilers #5 and #6 are affected sources under 40 CFR 63 Subpart DDDDD – NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters. According to Sec. 63.7506(b), existing large gaseous fuel and existing large liquid fuel units are only subject to the initial notification requirements in Sec. 63.9(b). As specified in Sec. 63.7545(b), an initial notification must be submitted no later than 120 days after November 12, 2004 (Received February 28, 2005). The initial notification must include the information listed in Sec. 63.7545(b)(1) and (b)(2), as applicable.

Authority for Requirement: 40 CFR 63 Subpart DDDDD
567 IAC 23.1(4)"dd"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Characteristics
Stack Height (feet): 149
Stack Diameter (inches): 72
Stack Exhaust Flow Rate (acfm): 106,000
Stack Temperature (^{o}F): NA
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permits 92-A-227S3, 92-A-228S3

Emission Unit Characteristics

EU	Temperature (ºF)	Flowrate (acfm)	Authority for Requirement
84.000	332	53,000	92-A-227S3
86.000	332	53,000	92-A-228S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Continuous Emissions Monitoring:

ME 84 (PEM)
Pollutant – NO_x
Operational Specifications – "Example Specifications and Test Procedures for Predictive Emission Monitoring Systems"[(1)]
Date of Initial System Calibration and Quality Assurance – 02/99
Ongoing System Calibration/Quality Assurance - "Example Specifications and Test Procedures for Predictive Emission Monitoring Systems"[(1)]
Reporting & Record keeping - 40 CFR 60.7, 567 IAC 25
Authority for Requirement – Iowa DNR Construction Permits 92-A-227S3, 92-A-228S3

[(1)] See Appendix E of this permit.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.049

Associated Equipment

Associated Emission Unit ID Number: 105.049
Emissions Control Equipment ID Number: CE 105.049
Emissions Control Equipment Description: Howden 376 Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.049
Emission Unit Description: Coal Dumping Shed, Coal Crusher
Raw Material/Fuel: Coal
Rated Capacity: 150 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20%
Authority for Requirement: Iowa DNR Construction Permit 88-A-134S4
567 IAC 23.1(2)"v"
40 CFR 60.252(c)

Pollutant: PM-10
Emission Limit(s): 1.541 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 88-A-134S4

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: Iowa DNR Construction Permit 88-A-134S4
567 IAC 23.3(2)"a"

[1] Standard is expressed as the average of 3 runs.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. Coal receiving capacity of 150 tons/hr.

Control equipment parameters:

1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the average coal receiving rate in tons per hour every day of operation.
2. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 88-A-134S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 70
Stack Diameter (inches): 36
Stack Exhaust Flow Rate (acfm): 27,000
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 88-A-134S4

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Opacity
Stack Test Completed on – April 2-3 2003
Test Method – 40 CFR 60, Appendix A, Method 9
Test Result – 0%
Authority for Requirement – Iowa DNR Construction Permit 88-A-134S4
567 IAC 23.1(2)"v"
40 CFR 60.254(b)(2)

Pollutant – PM-10
Stack Test Completed on – May 28, 2003
Test Method – 40 CFR 51, Appendix M, 201A with 202[2]
Result Emission Rate – 1.01 lb/hr
Result Concentration – 0.004 gr/scf
Authority for Requirement – Iowa DNR Construction Permit 88-A-134S4

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment:
Monitoring Guidelines
The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions
1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - If a pressure drop gauge is installed, it will be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

- The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
4. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #2 – Refinery

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
25	25.000	Chemical Tank Aspiration
27	27.000	Fructose Lime Addition
28	28.000	Fructose Precoat Unload
33	33.000	Fructose Check Filter Aid Addition
37	37.000	Carbon Furnace 1
56	56.000	Carbon Furnace 2
129	129.000	Refinery Hot Well Aspiration

Emission Point ID Number: 25

Associated Equipment

Associated Emission Unit ID Number: 25.000
Emissions Control Equipment ID Number: CE 25
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 25.000
Emission Unit Description: Chemical Tank Aspiration
Raw Material/Fuel: NaOH, HCl, Magnesium Sulfate/Magnesium Bi-Sulfite
Rated Capacity: 8000 gallon tank capacity for Magnesium Sulfate/Magnesium Bi-Sulfite

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.075 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-110S2

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. This system aspirates 8,000 gallons of Magnesium Sulfate/Magnesium Bi-Sulfite. The scrubber also aspirates HCl tanks.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-110S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 67
Stack Diameter (inches): 12
Stack Exhaust Flow Rate (acfm): 1,200
Stack Temperature (^{o}F): 110
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-110S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 27

Associated Equipment

Associated Emission Unit ID Number: 27.000
Emissions Control Equipment ID Number: CE 27
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 27.000
Emission Unit Description: Fructose Lime Addition
Raw Material/Fuel: Lime
Rated Capacity: 3240 tons/calendar month

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.058 lb/hr, 0.254 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-112S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.058 lb/hr, 0.254 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-112S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate of the lime addition shall be limited to 3240 tons of lime per calendar month.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the processed rate of lime dumped in tons per calendar month every month of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-112S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 62
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 1,350
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-112S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 28

Associated Equipment

Associated Emission Unit ID Number: 28.000
Emissions Control Equipment ID Number: CE 28
Emissions Control Equipment Description: Flex Kleen Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 28.000
Emission Unit Description: Fructose Precoat Unload
Raw Material/Fuel: Precoat
Rated Capacity: 4530 tons/calendar month

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-113S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.027 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-113S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate of the precoat unloading shall be limited to 4530 tons of precoat per calendar month.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the processed rate of precoat unloaded in tons per calendar month every month of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-113S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 66
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 620
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-113S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 33

Associated Equipment

Associated Emission Unit ID Number: 33.000
Emissions Control Equipment ID Number: CE 33
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 33.000
Emission Unit Description: Fructose Check Filter Aid Addition
Raw Material/Fuel: Filter Aid
Rated Capacity: 1512 tons/calendar month

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.58 lb/hr, 0.254 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 84-A-129S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.058 lb/hr, 0.254 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 84-A-129S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate of the Filter Aid addition shall be limited to 1512 tons of Filter Aid per calendar month.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the processed rate of Filter Aid addition in tons per calendar month every month of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 84-A-129S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 54
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 1,350
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 84-A-129S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 37

Associated Equipment

Associated Emission Unit ID Number: 37.000
Emissions Control Equipment ID Number: CE 37
Emissions Control Equipment Description: Venturi Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 37.000
Emission Unit Description: Carbon Furnace I
Raw Material/Fuel: Carbon, Natural Gas
Rated Capacity: 22 tons/day, 15 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 87-A-002S3
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.58 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 87-A-002S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: Iowa DNR Construction Permit 87-A-002S3
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 8.5 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 87-A-002S3

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. Burner capacity of 15.0 MMBtu/hr burning natural gas.
2. The processing rate of the carbon shall be limited to 22 tons of carbon per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The scrubber shall be maintained according to manufacturer's specifications.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.
2. Estimate and record the processing rate of carbon in tons per day every day of operation.
3. Maintain a 30-day rolling average of the processing rate of carbon every day of operation.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
5. Record the pressure drop across the scrubber weekly, and compare to the pressure drop recorded during the compliance test.

Authority for Requirement: Iowa DNR Construction Permit 87-A-002S3

Consent Decree:

This emission unit is subject to VOC and CO requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 91
Stack Diameter (inches): 20
Stack Exhaust Flow Rate (acfm): 7,910
Stack Temperature (^{o}F): 260
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 87-A-002S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter[(1)]
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

[(1)] According to the Department's Periodic Monitoring Guidance Document, emission points EP 37 and EP 56 are subject to stack testing for Particulate Matter. The facility may perform one stack test for Particulate Matter on EP 56 to demonstrate compliance with the Particulate Matter limits for both emission points. However, if the results of this stack test exceed the Particulate Matter emission limit for EP 56, then both emission points shall be considered out of compliance with their respective Particulate Matter emission limits.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at

least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 56

Associated Equipment

Associated Emission Unit ID Number: 56.000
Emissions Control Equipment ID Number: CE 56
Emissions Control Equipment Description: Venturi Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 56.000
Emission Unit Description: Carbon Furnace II
Raw Material/Fuel: Carbon, Natural Gas
Rated Capacity: 22 tons/day, 15 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.502 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 8.5 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 1.90 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. Burner capacity of 15.0 MMBtu/hr burning natural gas.
2. The processing rate of the carbon shall be limited to 22 tons of carbon per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The scrubber shall be maintained according to manufacturer's specifications.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.
2. Estimate and record the processing rate of carbon in tons per day every day of operation.
3. Maintain a 30-day rolling average of the processing rate of carbon every day of operation.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
5. Record the pressure drop across the scrubber weekly, and compare to the pressure drop recorded during the compliance test.

Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3

Consent Decree:

This emission unit is subject to VOC and CO requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 94
Stack Diameter (inches): 20
Stack Exhaust Flow Rate (acfm): 6,855
Stack Temperature (^{o}F): 260
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 91-A-018S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter[(1)]
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

[(1)] According to the Department's Periodic Monitoring Guidance Document, emission points EP 37 and EP 56 are subject to stack testing for Particulate Matter. The facility may perform one stack test for Particulate Matter on EP 56 to demonstrate compliance with the Particulate Matter limits for both emission points. However, if the results of this stack test exceeds the Particulate Matter emission limit for EP 56, then both emission points shall be considered out of compliance with their Particulate Matter emission limits.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at

least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 129

Associated Equipment

Associated Emission Unit ID Number: 129.000
Emissions Control Equipment ID Number: CE 129
Emissions Control Equipment Description: Dual Laminate Vertical Scrubber

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Applicable Requirements

Emission Unit vented through this Emission Point: 129.000
Emission Unit Description: Refinery Hot Well Aspiration
Raw Material/Fuel: Process Vapors
Rated Capacity: 500 ppm

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 1.18 lb/hr, 500 ppmv
Authority for Requirement: Iowa DNR Construction Permit 98-A-110
567 IAC 23.3(3)"e"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 70
Stack Diameter (inches): 15.6
Stack Exhaust Flow Rate (scfm): 4,000
Stack Temperature (^oF): 110
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 98-A-110

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #3 - Process

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Steephouse Limits		
7	7.000	Steephouse Conveying
8	8.000	Steephouse Aspiration 1
9	9.000	Millhouse Aspiration
55	55.000	Steephouse Aspiration 2
102	102.000	Mill Aspiration 2
105.013	105.013	Gluten Loadout Conveying 1
105.103	105.103	Gluten Flash Dryer Conveying 1
105.109	105.109	Gluten Flash Dryer Conveying 2
106	106.062	Gluten Flash Dryer 1
	106.901	Gluten Flash Dryer 2
119	119.000	Mill Aspiration 3
5	5.000	Corn Receiving 1
53	53.000	Corn and Solvent Extracted Meal Receiving 2
121	121.000	Process Control Backup Generator

Steephouse Limits
Emission Points – 7, 8, 9, 55, 102, 105.013, 105.103, 105.109, 106, 119

Associated Equipment

Associated Emission Unit ID Numbers: 7.000, 8.000, 9.000, 55.000, 102.000, 105.013, 105.103, 105.109.000, 106.062, 106.901, 119.000

Applicable Requirements

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the steeping rate of corn in tons per day every day of operation.
2. Maintain a 30-day rolling average of the steeping rate of corn every day of operation.

Authority for Requirement: Iowa DNR Construction Permits 83-A-092-S2, 83-A-093-S1, 83-A-094-S2, 90-A-354-S1, 95-A-405-S1, 83-A-098-S6, 88-A-061-S3, 95-A-406-S1, 95-A-407-S1, 90-A-356-S4, 95-A-412-S2, 95-A-415-S1

Emission Point ID Number: 7

Associated Equipment

Associated Emission Unit ID Number: 7.000
Emissions Control Equipment ID Number: CE 7
Emissions Control Equipment Description: Carter Day Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 7.000
Emission Unit Description: Steephouse Conveying
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0 %[1]
Authority for Requirement: Iowa DNR Construction Permit 83-A-092-S2
40 CFR 60.302(b)2
567 IAC 23.1(2)"ooo"

Pollutant: PM-10
Emission Limit(s): 0.129 lb/hr[2], 0.565 ton/yr[3]
Authority for Requirement: Iowa DNR Construction Permit 83-A-092-S2

Pollutant: Particulate Matter
Emission Limit(s): 0.129 lb/hr[2], 0.565 ton/yr[3], 0.005 gr/dscf, 0.01 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 83-A-092-S2
40 CFR 60.302(b)1
567 IAC 23.1(2)"ooo"

[1] An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of 3 runs.
[3] Standard is a 12-month rolling total.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. See "Process throughput" limits on page 2.

Control equipment parameters:

1. Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.

Authority for Requirement: Iowa DNR Construction Permit 83-A-092-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 105
Stack Diameter (inches): 12
Stack Exhaust Flow Rate (acfm): 3,000
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-092-S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant - Opacity
Stack Test Completed on – August 30, 2005
Test Result – 0%
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – Iowa DNR Construction Permit 83-A-092-S2
40 CFR 60 Subpart DD
567 IAC 23.1(2)"ooo"

Pollutant – Particulate Matter
Stack Test Completed on – August 30, 2005
Test Result – 0.06 lb/hr.
Test Method – 40 CFR 60, Appendix A, Method 5
Authority for Requirement – Iowa DNR Construction Permit 83-A-092-S2
40 CFR 60 Subpart DD
567 IAC 23.1(2)"ooo"

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 8

Associated Equipment

Associated Emission Unit ID Number: 8.000
Emissions Control Equipment ID Number: CE 8
Emissions Control Equipment Description: Packed Tower Scrubber

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Applicable Requirements

Emission Unit vented through this Emission Point: 8.000
Emission Unit Description: Steephouse Aspiration 1
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.313 lb/hr, 1.371 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-093S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.313 lb/hr, 1.371 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-093S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.410 lb/hr, 1.796 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-093S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:

1. The scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-093S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 120
Stack Diameter (inches): 24
Stack Exhaust Flow Rate (acfm): 8,000
Stack Temperature (^{o}F): 120
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-093S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 9

Associated Equipment

Associated Emission Unit ID Number: 9.000
Emissions Control Equipment ID Number: CE 9
Emissions Control Equipment Description: Packed Bed Tower Scrubber

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Applicable Requirements

Emission Unit vented through this Emission Point: 9.000
Emission Unit Description: Millhouse Aspiration
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.210 lb/hr[1], 9.680 ton/yr[2]
Authority for Requirement: Iowa DNR Construction Permit 83-A-094S2

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling average.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The scrubbers should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-094S2

Consent Decree:
This emission unit is subject to VOC requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.
Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 120
Stack Diameter (inches): 42
Stack Exhaust Flow Rate (acfm): 25,000
Stack Temperature (^{o}F): 106
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-094S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:[1]

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed by – October 17, 2008
Test Method – 46 CFR 60, Appendix A, Method 6C
Authority for Requirement – 567 IAC 22.108(3)

[1] Testing on this emission point shall be considered to be a representative test for EP's 8, 55, 102, and 119.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 55

Associated Equipment

Associated Emission Unit ID Number: 55.000
Emissions Control Equipment ID Number: CE 55
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 55.000
Emission Unit Description: Steephouse Aspiration 2
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.005 gr/scf, 0.313 lb/hr, 1.371 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 90-A-354S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.313 lb/hr, 1.371 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 90-A-354S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.410 lb/hr, 1.796 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 90-A-354S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:

1. The scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 90-A-354S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 120
Stack Diameter (inches): 36
Stack Exhaust Flow Rate (acfm): 8,000
Stack Temperature (^{o}F): 120
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 90-A-354S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 102

Associated Equipment

Associated Emission Unit ID Number: 102.000
Emissions Control Equipment ID Number: CE 102
Emissions Control Equipment Description: Packed Bed Tower Scrubber

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Applicable Requirements

Emission Unit vented through this Emission Point: 102.000
Emission Unit Description: Mill Aspiration 2
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 1.4 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-405S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Authority for Requirement: Iowa DNR Construction Permit 95-A-405S1

Control equipment parameters:
1. The scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pH and pressure drop across the scrubber weekly, and compare to the pH and pressure drop recorded during the compliance test. The values observed during the compliance test were 6.5 pH and between 0.5 and 5.0 inches of water for the pressure drop.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 95-A-405S1

Consent Decree:
This emission unit is subject to VOC requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.
Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 120
Stack Diameter (inches): 36
Stack Exhaust Flow Rate (acfm): 15,000
Stack Temperature (^{o}F): 106
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 95-A-405S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.013

Associated Equipment

Associated Emission Unit ID Number: 105.013
Emissions Control Equipment ID Number: CE 105.013
Emissions Control Equipment Description: Carter Day Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.013
Emission Unit Description: Gluten Loadout Conveyor 1
Raw Material/Fuel: Gluten
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-098S6
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.219 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-098S6

Pollutant: Particulate Matter
Emission Limit(s): 0.219 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-098S6

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The fabric filter shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-098S6

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 79
Stack Diameter (inches): 14
Stack Exhaust Flow Rate (acfm): 4,000
Stack Temperature (^{o}F): 120
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-098S6

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter[(1)]
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

[(1)] Testing on this emission point shall be considered to be a representative test for EP's 105.103 and 105.109.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.103

Associated Equipment

Associated Emission Unit ID Number: 105.103
Emissions Control Equipment ID Number: CE 105.103
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.103
Emission Unit Description: Gluten Flash Dryer Conveying 1
Raw Material/Fuel: Gluten
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 95-A-406S1
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.240 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-406S1

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The fabric filter shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 95-A-406S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 106
Stack Diameter (inches): 14
Stack Exhaust Flow Rate (acfm): 5,600
Stack Temperature (^{o}F): 120
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 95-A-406S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.109

Associated Equipment

Associated Emission Unit ID Number: 105.109
Emissions Control Equipment ID Number: CE 105.109
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.109
Emission Unit Description: Gluten Flash Dryer Conveying 2
Raw Material/Fuel: Gluten
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 95-A-407S1
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.240 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-407S1

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The fabric filter shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 95-A-407S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 106
Stack Diameter (inches): 14
Stack Exhaust Flow Rate (acfm): 5,600
Stack Temperature (^{o}F): 120
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 95-A-407S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 106

Associated Equipment

Associated Emission Unit ID Number: 106.062, 106.901

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Rated Capacity
106.062	Gluten Flash Dryer 1	CE 106.062: Clean Gas Scrubber	Gluten, Natural Gas	10,100 tons/day, 40 MMBtu/hr
106.901	Gluten Flash Dryer 2	CE 106.901: Entoleter Scrubber	Gluten, Natural Gas	10,100 tons/day, 40 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

EU	Opacity	PM-10	PM	Sulfur Dioxide (SO_2)	Nitrogen Oxides (NO_x)	Volatile Organic Compounds	Authority for Requirement
106.062	0%	5.902 lb/hr	5.902 lb/hr	25.0 lb/hr	3.50 lb/hr	0.491 ton/yr	90-A-356S4, 567 IAC 23.3(2)"d"
106.901	0%[1]	5.902 lb/hr	5.902 lb/hr	3.25 lb/hr	3.5 lb/hr	0.491 ton/yr	95-A-412S2, 567 IAC 23.3(2)"d"

[1] If visible emissions are observed other than at startup, shutdown, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

EU's 106.062 & 106.901

Process throughput:

1. See "Process throughput" limits on page 2.
2. Each burner capacity of 40.0 MMBtu/hr burning natural gas.

Control equipment parameters:

1. Each scrubber shall be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the average amount of natural gas consumed by each burner (MMBtu/hr) every day of operation.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permits 90-A-356S4, 95-A-412S2

<u>EU 106.062</u>
Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the pressure drop across the scrubber weekly, and compare to the pressure drop recorded during the compliance test.
2. Record date caustic addition to the scrubber is stopped.

Authority for Requirement: Iowa DNR Construction Permit 90-A-356S4

<u>EU 106.901</u>
Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the pH and pressure drop across the scrubber weekly, and compare to the pH and pressure drop recorded during the compliance test. The values observed during the compliance test were; 6.5 pH and between 8 and 13 inches of water for the pressure drop.

Authority for Requirement: Iowa DNR Construction Permit 95-A-412S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Emission Point Characteristics
Stack Height (feet): 225
Stack Diameter (inches): 78
Stack Exhaust Flow Rate (acfm): 66,000
Stack Temperature (^{o}F): NA
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 90-A-356S4, 95-A-412S2

Emission Unit Characteristics

EU	Temperature (ºF)	Flowrate (acfm)	Authority for Requirement
106.062	175	33,000	90-A-356S4
106.901	175	33,000	95-A-412S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

To be tested with both flash dryers operating at or near full capacity.
Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment:

Required for CE's 106.062 and 106.901

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop gauge shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 119

Associated Equipment

Associated Emission Unit ID Number: 119.000
Emissions Control Equipment ID Number: CE 119
Emissions Control Equipment Description: Heil Packed Tower Scrubber

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Applicable Requirements

Emission Unit vented through this Emission Point: 119.000
Emission Unit Description: Mill Aspiration 3
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 1.4 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-415S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The scrubber shall be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pH and pressure drop across the scrubber weekly, and compare to the pH and pressure drop recorded during the compliance test. The values observed during the compliance test were; 6.5 pH and between 4 and 9 inches of water for the pressure drop.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 95-A-415S1

Consent Decree:
This emission unit is subject to VOC requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.
Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 120
Stack Diameter (inches): 36
Stack Exhaust Flow Rate (acfm): 15,000
Stack Temperature (^{o}F): 106
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 95-A-415S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 5

Associated Equipment

Associated Emission Unit ID Number: 5.000
Emissions Control Equipment ID Number: CE 5
Emissions Control Equipment Description: Carter Day Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 5.000
Emission Unit Description: Corn Receiving 1
Raw Material/Fuel: Corn
Rated Capacity: 14,000 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity (Stack)
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-090S2
40 CFR Part 60 Subpart DD
567 IAC 23.1(2)"ooo"

Pollutant: Opacity (Fugitive)
Emission Limit(s): 5%
Authority for Requirement: Iowa DNR Construction Permit 83-A-090S2
40 CFR Part 60 Subpart DD
567 IAC 23.1(2)"ooo"

Pollutant: PM-10
Emission Limit(s): 1.500 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-090S2

Pollutant: Particulate Matter
Emission Limit(s): 0.01 gr/dscf
Authority for Requirement: 567 IAC 23.1(2)"ooo"
40 CFR Part 60 Subpart DD

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The receiving capacity rate of this process unit shall be limited to 14,000 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the receiving rate of corn in tons per day every day of operation.
2. Maintain a 30-day rolling average of the received rate of corn every day of operation.
3. Record the pressure drop across the filter weekly, and compare with the pressure drop recorded during compliance testing.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-090S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 160
Stack Diameter (inches): 31
Stack Exhaust Flow Rate (acfm): 35,000
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-090S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: [1]

Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM-10
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 51, Appendix M, 201A with 202*
Authority for Requirement - 567 IAC 22.108(3)

* Or approved alternative

[1] According to the Department's Periodic Monitoring Guidance Document, emission points 5 and 53 are subject to stack testing for PM and PM-10. The facility may choose to perform one test on EP 53 to demonstrate compliance with the PM and PM-10 emission limits for both emission points. However, if the results of the stack testing show a violation of the applicable emission limits for EP 53, then both emission points shall be considered to be out of compliance with their respective PM and PM-10 emission limits. The test method used must be approved by the Department's stack testing personnel prior to testing.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required at the stack, or a Method 22 observation will be required for fugitive emissions. If an opacity >0 % from the stack, or >5% from fugitive emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 53

Associated Equipment

Associated Emission Unit ID Numbers: 53.000
Emissions Control Equipment ID Number: CE 53.000
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 53.000
Emission Unit Description: Corn and Solvent Extracted Meal Receiving 2
Raw Material/Fuel: Corn
Rated Capacity: 14,000 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity (Stack)
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 90-A-352-S6
40 CFR Part 60 Subpart DD
567 IAC 23.1(2)"ooo"

Pollutant: Opacity (Fugitive)
Emission Limit(s): 5%
Authority for Requirement: Iowa DNR Construction Permit 90-A-352-S6
40 CFR Part 60 Subpart DD
567 IAC 23.1(2)"ooo"

Pollutant: PM-10
Emission Limit(s): 1.564 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 90-A-352-S6

Pollutant: Particulate Matter
Emission Limit(s): 0.01 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 90-A-352-S6
567 IAC 23.1(2)"ooo"
40 CFR Part 60 Subpart DD

[1] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. This process is a member of the Process Group (3). The receiving capacity rate of this process shall be limited to 14,000 tons of corn and dry feed ingredients per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter on this source shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 15.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the receiving rate of corn and dry feed ingredients in tons per day every day of operation.
2. Maintain a 30-day rolling average of the receiving rate of corn and dry feed ingredients every day of operation.
3. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 90-A-352-S6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 120
Stack Diameter (inches): 31
Stack Exhaust Flow Rate (scfm): 36,500
Stack Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 90-A-352-S6

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: [1]

Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM-10
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 51, Appendix M, 201A with 202*
Authority for Requirement - 567 IAC 22.108(3)

* Or approved alternative

[1] According to the Department's Periodic Monitoring Guidance Document, emission points 5 and 53 are subject to stack testing for PM and PM-10. The facility may choose to perform one test on EP 53 to demonstrate compliance with the PM and PM-10 emission limits for both emission points. However, if the results of the stack testing show a violation of the applicable emission limits for EP 53, then both emission points shall be considered to be out of compliance with their respective PM and PM-10 emission limits. The test method used must be approved by the Department's stack testing personnel prior to testing.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required at the stack, or a Method 22 observation will be required for fugitive emissions. If an opacity >0 % from the stack, or >5% from fugitive emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐
(Required for CE 53.000 and CE 53.138)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 121

Associated Equipment

Associated Emission Unit ID Number: 121.000

Applicable Requirements

Emission Unit vented through this Emission Point: 121.000
Emission Unit Description: Process Control Backup Generator
Raw Material/Fuel: Distillate Fuel Oil
Rated Capacity: 16 gal/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.935 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 96-A-1039

Pollutant: Particulate Matter
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 13.2 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 96-A-1039

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Hours of operation:
1. The Process Control Backup Generator is to be operated no more than 500 hours per 12-month rolling period.

Process throughput:

1. Fuel usage in the Process Control Backup Generator is limited to diesel fuel which contains a sulfur content of 0.05% by weight or less.
2. The owner or operator is required to operate the Process Control Backup Generator within the operating limits specified by its manufacturer.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Fuel supplier's analysis of diesel fuel used in the Process Control Backup Generator which shows weight percentage of sulfur in diesel fuel.
2. Record of time periods when the Process Control Backup Generator is operating.
3. Total hours of operation for the Process Control Backup Generator per 12-month rolling period.
4. Log of maintenance and repairs performed on the Process Control Backup Generator.

Authority for Requirement: Iowa DNR Construction Permit 96-A-1039

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 20
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (acfm): 2,220
Stack Temperature (^{o}F): 925
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 96-A-1039

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #4 – Feed

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Steephouse Limits		
18	18.000	Feedhouse Aspiration
104	104.000	Fiber Flash Dryer
	104.134	Fiber Pneumatic Conveyor 1
	104.135	Fiber Pneumatic Conveyor 2
	104.136	CC/SEM Pneumatic Receiver
105.036	105.036	Feedhouse Conveyor Aspiration
105.019	105.019	Feed Storage & Loadout/Rail
105.040	105.014	Gluten Loadout Conveying 2
	105.040	Feedhouse Loadout/Truck
140	140.000	Sweet Feed Loadout

Steephouse Limits

Emission Points – 18, 104, 105.036

Associated Equipment

Associated Emission Unit ID Numbers: 18.000, 104.000, 104.134, 104.135, 104.136, 105.036

Applicable Requirements

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the steeping rate of corn in tons per day every day of operation.
2. Maintain a 30-day rolling average of the steeping rate of corn every day of operation.

Authority for Requirement: Iowa DNR Construction Permits 83-A-103S1, 00-A-467, 83-A-121S2

Emission Point ID Number: 18

Associated Equipment

Associated Emission Unit ID Number: 18.000
Emissions Control Equipment ID Number: CE 18
Emissions Control Equipment Description: Packed Tower Scrubber

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Applicable Requirements

Emission Unit vented through this Emission Point: 18.000
Emission Unit Description: Feedhouse Aspiration
Raw Material/Fuel: Corn
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.868 lb/hr, 3.802 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 83-A-103S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-103S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 64
Stack Diameter (inches): 14.6
Stack Exhaust Flow Rate (acfm): 8,000
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-103S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 104

Associated Equipment

Associated Emission Unit ID Numbers: 104.000, 104.134, 104.135, 104.136

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Rated Capacity
104.000	Fiber Flash Dryer	CE 104.000: Scrubber	Corn	10,100 tons/day (30 day rolling average)
104.134	Fiber Pneumatic Conveyor 1	CE 104.134: Baghouse	Corn	
104.135	Fiber Pneumatic Conveyor 2	CE 104.135: Baghouse	Corn	
104.136	CC/SEM Pneumatic Receiver	CE 104.136: Baghouse	Corn	

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

All Emission Units
Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 10.62 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

Pollutant: Particulate Matter
Emission Limit(s): 10.62 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 10.0 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 11.2 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 0.981 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

The following emission limits on individual units exhausting to stack 104 are also imposed:

EU	PM-10	Particulate Matter	Sulfur Dioxide (SO_2)	Nitrogen Dioxide (NO_x)	Volatile Organic Compounds (VOC's)
104.000	8.92 lb/hr	8.92 lb/hr	10.0 lb/hr	11.20 lb/hr	0.981 ton/yr
104.134	0.47 lb/hr	NA	NA	NA	NA
104.135	0.47 lb/hr	NA	NA	NA	NA
104.136	0.76 lb/hr	NA	NA	NA	NA

Authority for Requirement: Iowa DNR Construction Permit 00-A-4671S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. See "Process throughput" limits on page 2.
2. The processing rate for this source shall be limited to 10,000 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.
3. The burner capacity of the fiber flash dryer is 80.0 MMBtu/hr and shall fire natural gas only.

Control equipment parameters:

1. The scrubber on the fiber flash dryer shall be operated and maintained according to manufacturer's specifications.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
3. Record the pH and pressure drop across the scrubber weekly, and compare to the pH and pressure drop recorded during the compliance test. The values observed during the compliance test were; 6.5 pH and between 3 and 8 inches of water for the pressure drop.
4. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 225
Stack Diameter (inches): 109.5
Stack Exhaust Flow Rate (scfm): 41,625
Stack Temperature (^{o}F): 183
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 00-A-467S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing Completed:

Pollutant – Particulate Matter
Stack Test Completed on – November 10, 2005
Test Results – 1.97 lb/hr.
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement – Iowa DNR Construction Permit 00-A-467-S1

Stack Testing:

To be tested with all four emission units operating at or near full capacity.
Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR, Appendix A, Method 6C
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: **For CE 104.000: Scrubber only**

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop gauge shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐
(For CE's 104.134: Baghouse, 104.135: Baghouse, and 104.136: Baghouse)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.036

Associated Equipment

Associated Emission Unit ID Number: 105.036
Emissions Control Equipment ID Number: CE 105.036
Emissions Control Equipment Description: Carter Day Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.036
Emission Unit Description: Feedhouse Conveyor Aspiration
Raw Material/Fuel: Fiber
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-121S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.300 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 83-A-121S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pressure drop across the filter weekly, and compare to the pressure drop recorded during the compliance test.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-121S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 28
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (acfm): 7,000
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-121S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment:

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.
   - All aspects of the control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
4. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.019

Associated Equipment

Associated Emission Unit ID Number: 105.019
Emissions Control Equipment ID Number: CE 105.019
Emissions Control Equipment Description: Carter Day Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.019
Emission Unit Description: Feed Storage & Loadout/Rail
Raw Material/Fuel: Feed
Rated Capacity: 950 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 83-A-104S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.186 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 83-A-104S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: Iowa DNR Construction Permit 83-A-104S3
567 IAC 23.3(2)"a"

[1] Standard is expressed as the average of 3 runs.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The loadout capacity of this process shall be limited to 950 tons of feed per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the loadout rate of feed in tons per day every day of operation.
2. Maintain a 30-day rolling average of the loadout rate of feed every day of operation.
3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 83-A-104S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 60
Stack Diameter (inches): 14
Stack Exhaust Flow Rate (acfm): 4,500
Stack Temperature (^{o}F): 90
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 83-A-104S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Stack Testing:

Pollutant – PM-10
Stack Test Completed on – April 1-2, 2003
Test Method – 40 CFR 51, Appendix M, 201A with 202
Result Emission Rate – 0.03 lb/hr.
Result Concentration – 0.001gr/scf
Authority for Requirement – Iowa DNR Construction Permit 83-A-104S3

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.040

Associated Equipment

Associated Emission Unit ID Numbers: 105.014, 105.040

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Rated Capacity
105.014	Gluten Loadout Conveyor 2	CE 105.014: Baghouse	Gluten	10,100 tons/day
105.040	Feedhouse Loadout/Truck	CE 105.040: Baghouse	Feed	1,500 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 88-A-061S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 1.51 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 88-A-061S3

Pollutant: Particulate Matter
Emission Limit(s): 1.51 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 88-A-061S3

[2] Standard is expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.
2. The loadout capacity of this process shall be limited to 1500 tons of feed per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filters on these sources shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 12.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the steeping rate of corn in tons per day every day of operation.
2. Maintain a 30-day rolling average of the steeping rate of corn every day of operation.
3. Estimate and record the loadout of feed in tons per day every day of operation.
4. Maintain a 30-day rolling average of the loadout of feed every day of operation.
5. Record the pressure drop across the fabric filters weekly, and compare to the pressure drop recorded during the compliance test.
6. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 88-A-061S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 100
Stack Diameter (inches): 38
Stack Exhaust Flow Rate (acfm): 34,000
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 88-A-061S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM-10
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 51, Appendix M, 201A with 202*
Authority for Requirement - 567 IAC 22.108(3)

* Or approved alternative.

Cargill may choose to perform one stack test to account for both PM and PM-10 emissions. This one test will satisfy the testing requirements for both pollutants. If the test results show a violation of the applicable emission limits, then the emission point will be considered to be out of compliance for both pollutants. The test method used must be approved by the Department's stack testing personnel prior to testing.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: **For CE 105.040: Baghouse**

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop gauge shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.
   - All aspects of the control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
4. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

(Required for CE 105.014: Baghouse)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at

least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 140

Associated Equipment

Associated Emission Unit ID Number: 140.000

Applicable Requirements

Emission Unit vented through this Emission Point: 140.000
Emission Unit Description: Sweet feed Loadout
Raw Material/Fuel: Sweet Feed
Rated Capacity: 3200 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 01-A-1162
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, any visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.51 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-1162

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf, 0.51 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-1162
567 IAC 23.3(2)"a"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 68
Stack Diameter (inches): 36
Stack Exhaust Flow Rate (scfm): 20,000
Stack Temperature (^{o}F): 65
Vertical Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 01-A-1162

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing Completed:

Pollutant – Particulate Matter
Stack Test Completed – 11/9/01
Test Method – Iowa Method 5
Result Concentration – 0.003 gr/scf
Result lb/hr – 0.4 lb/hr

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #5 – Germ

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Germ Limits		
67	67.000	Mineral Oil Scrubber
68	68.000	Building Aspiration
69	69.000	Extraction & DT Aspiration
70	70.000	Germ Storage Aspiration
105.090	105.090	Germ Meal Silo
107	107.058	Flaker/Conditioner
	107.059	Expeller Aspiration 1
	107.064	Cold Germ Transfer Receiver
	107.110	Expeller Aspiration 2
107	107.060	Germ Dryer/Cooler 1
133	133.000	Meal Conveyor
137	137.000	Sweet Feed SEM Silo Receiver
139	139.000	Germ Meal Dryer/Cooler
141	141	Corn Oil Tank
146	146.000	Dry Germ Silo
177	177.000	Corn and Dry Feed Ingredients Storage Bin
178	178.000	Corn and Dry Feed Ingredients Storage Bin
179	179.000	Pilot Plant Aspiration Unit
180	180.000	Pilot Plant Pellet Cooler
181	181.000	Pilot Plant Extraction Process
182	182.000	Pilot Plant Meal Cooler
183	183.000	Corn Meal Products Storage Bin
184	184.000	Corn Meal Products Storage Bin
185	185.000	Corn Meal Products Loadout

Germ Limits

Emission Points –67, 68, 69, 70, 105.090, 107

Associated Equipment

Associated Emission Unit ID Numbers: 67.000, 68.000, 69.000, 70.000, 105.090, 107.058, 107.059, 107.064, 107.064, 107.110

Applicable Requirements

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The processing rate of the germ group shall be limited to 1,500 tons of germ per day with compliance demonstrated on a 30-day rolling average basis.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the production rate of the germ process in tons per day every day of operation.
2. Maintain a 30-day rolling average of the production rate of the germ process every day of operation.

Authority for Requirement: Iowa DNR Construction Permits 91-A-114S2, 03-A-004, 03-A-005, 91-A-117S1, 93-A-063S4, 91-A-108S2, 91-A-109S2, 90-A-355S4, 91-A-111S2, 95-A-416S1

NESHAP:

40 CFR Part 63 Subpart GGGG – Solvent Extraction for Vegetable Oil Production.
The full rule text for this Subpart is included as Appendix D of this permit.

Consent Decree:

The emission units associated with the Germ Process Group are subject to VOC requirements as required by the Consent Decree. Please see the "Plant-Wide Conditions" section and Appendix G of this permit for specific Consent Decree language regarding these emission units.

Authority for Requirement: Civil Action Number 05-2037JMR/FLN
567 IAC 22.108(1)

Emission Point ID Numbers: 67, 68, 69

Associated Equipment

Associated Emission Unit ID Number: 67.000, 68.000, 69.000

Applicable Requirements

EP= Emission Point *EU= Emission Unit*

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
67	67.000	Mineral Oil Scrubber	CE 67: Scrubber	Germ	1,500 tons/day	91-A-114S2
68	68.000	Building Aspiration	NA			03-A-004
69	69.000	Extraction & DT Aspiration	NA			03-A-005

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's) (Hexane)
Emission Limit(s): 2700.00 lb/day[1], 492.750 ton/yr[2]
Authority for Requirement: Iowa DNR Construction Permits 91-A-114S2, 03-A-004, 03-A-005

[1] Limit for all solvent loss plant-wide.
[2] Standard is a 12-month rolling total.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.
2. Solvent loss from the germ plant shall not exceed 2,700 pounds per day with compliance demonstrated on a 365-day rolling average basis.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Estimate and record the daily solvent loss in pounds per day as determined from material balances every day of operation.
3. Maintain a 365-day rolling average of the solvent loss every day of operation.
4. Retain purchases of hexane to support solvent loss from this process.
5. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permits 91-A-114S2, 03-A-004, 03-A-005

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

EP	Stack Height (ft.)	Stack Diameter (in)	Stack Exhaust Flowrate (acfm)	Stack Temperature (ºF)	Discharge Type	Construction Permit
67	38	6	62	Ambient	Vertical Unobstructed	91-A-114S2
68	67	40	48,000	100	Vertical Unobstructed	03-A-004
69	88	36	18,000	Ambient	Vertical Unobstructed	03-A-005

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: **For CE 67: Scrubber Only**

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring

and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - If a pressure drop gauge is installed, it will be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.
5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 70

Associated Equipment

Associated Emission Unit ID Number: 70.000
Emissions Control Equipment ID Number: CE 70
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 70.000
Emission Unit Description: Germ Storage Aspiration
Raw Material/Fuel: Germ
Rated Capacity: 1,500 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.168 lb/hr, 0.736 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 91-A-117S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.168 lb/hr, 0.736 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 91-A-117S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 91-A-117S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 125
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (acfm): 4,000
Stack Temperature (^{o}F): 80
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 91-A-117S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 105.090

Associated Equipment

Associated Emission Unit ID Number: 105.090
Emissions Control Equipment ID Number: CE 105.090
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 105.090
Emission Unit Description: Corn Germ Meal Silo Vent
Raw Material/Fuel: Germ Meal
Rated Capacity: 1,500 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 93-A-063S4
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.289 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 93-A-063S4

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf, 0.289 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 93-A-063S4
567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. The fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Record the pressure drop across the filter weekly and compare with the pressure drop recorded during the compliance test.

Authority for Requirement: Iowa DNR Construction Permit 93-A-063S4

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 106
Stack Diameter (inches): 12
Stack Exhaust Flow Rate (scfm): 5000
Stack Temperature (^{o}F): 80
Vertical, w/o Raincap or with Unobstructing Raincap Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-063S4

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing Completed:

Pollutant – Particulate Matter/PM-10
Stack Test Completed – 11/06/01
Test Method – PM-10 Method 5
Result lb/hr – 0.06 lb/hr

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 107

Associated Equipment

Associated Emission Unit ID Numbers[1]: 107.058, 107.059, 107.064, 107.110

[1] EU 107.060 is also associated with this emission point. Please see pages 16-18 for Emission Unit specific requirements.

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Rated Capacity
107.058	Flaker Conditioner	CE 107.058: Cyclone Scrubbers (2)	Germ	1,500 tons/day (30 day rolling average)
107.059	Expeller Aspiration 1	CE 107.059: Scrubber		
107.064	Cold Germ Transfer Receiver	CE 107.064: Baghouse		
107.110	Expeller Aspiration 2	CE 107.110: Scrubber		

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

EU	Opacity	PM-10	PM	Authority for Requirement
107.058	0%	0.479 lb/hr	0.1 gr/scf	91-A-108S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
107.059	0%	0.347 lb/hr	0.1 gr/scf	91-A-109S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
107.064	0%	0.562 lb/hr	0.1 gr/scf	91-A-111S2, 567 IAC 23.3(2)"d", 23.3(2)"a
107.110	0%	0.347 lb/hr	0.1 gr/scf	95-A-416S1, 567 IAC 23.3(2)"d", 23.3(2)"a"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All EU's

Process throughput:

1. See "Process throughput" limits on page 2.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture systems (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permits 91-A-108S2, 91-A-109S2, 91-A-111S2, 95-A-416S1

<u>EU 107.058</u>
Control equipment parameters:

1. The cyclone scrubbers should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the pressure drop across the scrubber weekly, and compare with the pressure drop recorded during the compliance testing.

Authority for Requirement: Iowa DNR Construction Permit 91-A-108S2

<u>EU 107.059</u>
Control equipment parameters:

1. The scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the pressure drop across the scrubber weekly, and compare with the pressure drop recorded during the compliance testing.

Authority for Requirement: Iowa DNR Construction Permit 91-A-109S2

EU 107.064

Control equipment parameters:

1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the pressure drop across the filters weekly, and compare with the pressure drop recorded during the compliance testing.

Authority for Requirement: Iowa DNR Construction Permit 91-A-111S2

EU 107.110

Control equipment parameters:

1. The scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the pressure drop across the scrubber weekly, and compare with the pressure drop recorded during the compliance testing.

Authority for Requirement: Iowa DNR Construction Permit 95-A-416S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Characteristics

Stack Height (feet): 185

Stack Diameter (inches): 60

Stack Exhaust Flow Rate (acfm): 52,000

Stack Temperature (^{o}F): NA

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permits 91-A-108S2, 91-A-109S2, 91-A-111S2, 95-A-416S1

Emission Unit Characteristics

EU	Temperature (ºF)	Flowrate (acfm)	Authority for Requirement
107.058	110	6,000	91-A-108S2
107.059	120	4,425	91-A-109S2
107.064	130	7,300	91-A-111S2
107.110	120	4,424	95-A-416S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

To be tested with all five emission units operating at or near full capacity.
Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:
The facility shall check the opacity weekly during a period when the emission units on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the units. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐
(Required for CE's 107.058, 107.059, 107.064, 107.110)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 107

Associated Equipment

Associated Emission Unit ID Number[1]: 107.060
Emissions Control Equipment ID Number: CE 107.060
Emissions Control Equipment Description: Scrubber
[1] EU's 107.058, 107.059, 107.064, & 107.110 are also associated with this emission point. Please see pages 11-15 for Emission Unit specific requirements.

Applicable Requirements

Emission Unit vented through this Emission Point: 107.060
Emission Unit Description: Germ Dryer/Cooler 1
Raw Material/Fuel: Germ
Rated Capacity: 10,100 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 90-A-355S5
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 1.050 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 90-A-355S5

Pollutant: Particulate Matter
Emission Limit(s): 0.01 gr/scf, 1.050 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 90-A-355S5

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 25.0 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-355S5

[1] Standard is expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The steeping capacity of the process group shall be limited to 10,100 tons per day with compliance demonstrated on a 30-day rolling average.

Control equipment parameters:

1. The scrubber shall be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the steeping rate of corn in tons per day every day of operation.
2. Maintain a 30-day rolling average of the steeping rate of corn every day of operation.
3. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture systems (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
4. Record the pressure drop across the scrubber weekly, and compare to the pressure drop recorded during the compliance test.

Authority for Requirement: Iowa DNR Construction Permit 90-A-355S5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Emission Point Characteristics

Stack Height (feet): 185

Stack Diameter (inches): 60

Stack Exhaust Flow Rate (acfm): 52,000

Stack Temperature (^{o}F): NA

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permit 90-A-355S5

Emission Unit Characteristics

EU	Temperature (^{o}F)	Flowrate (acfm)	Authority for Requirement
107.060	200	15,250	90-A-355S5

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

See stack testing requirements on page 14.

Opacity:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐
(Required for CE's 107.060a and 107.060b)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 133

Associated Equipment

Associated Emission Unit ID Number: 133.000

Applicable Requirements

Emission Unit vented through this Emission Point: 133.000
Emission Unit Description: Meal Conveyor
Raw Material/Fuel: Corn Germ
Rated Capacity: 1,500 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 99-A-164S2
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.086 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 99-A-164S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf, 0.086 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 99-A-164S2
567 IAC 23.3(2)"a"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 75
Stack Diameter (inches): 8
Stack Exhaust Flow Rate (scfm): 100
Stack Temperature (^{o}F): 150
Discharge Type: Vertical, Obstructed
Authority for Requirement: Iowa DNR Construction Permit 99-A-164S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 137

Associated Equipment

Associated Emission Unit ID Number: 137.000
Emissions Control Equipment ID Number: CE 137
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 137.000
Emission Unit Description: Sweet Feed SEM Silo Receiver
Raw Material/Fuel: Germ
Rated Capacity: 1,500 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-468S2
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.31 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-468S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf, 0.31 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-468S2
567 IAC 23.3(2)"a"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 90
Stack Diameter (inches): 13
Stack Exhaust Flow Rate (scfm): 7000
Stack Temperature (^{o}F): 50
Vertical, w/o Raincap or with Unobstructing Raincap Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 00-A-468S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing Completed:
Pollutant – Particulate Matter/PM-10
Stack Test Completed – 11/09/01
Test Method – PM-10 Method 5
Result lb/hr – 0.11 lb/hr

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 139

Associated Equipment

Associated Emission Unit ID Number: 139.000
Emissions Control Equipment ID Number: CE 139
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 139.000
Emission Unit Description: Germ Meal Dryer/Cooler
Raw Material/Fuel: Germ
Rated Capacity: 1,500 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 01-A-574S1
567 IAC 23.3(2)"d"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.36 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-574S1

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf, 0.36 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-574S1
567 IAC 23.3(2)"a"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 90
Stack Diameter (inches): 19.5
Stack Exhaust Flow Rate (scfm): 4,150
Stack Temperature (^{o}F): 125
Vertical w/o Rain Cap or w/ Unobstructing Rain Cap Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 01-A-574S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing Completed:
Pollutant – Particulate Matter/PM-10
Stack Test Completed – 11/06/01
Test Method – PM-10 Method 5
Result lb/hr – 0.12 lb/hr

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 141

Associated Equipment

Associated Emission Unit ID Number: 141.000

Applicable Requirements

Emission Unit vented through this Emission Point: 141.000
Emission Unit Description: Corn Oil Tank
Raw Material/Fuel: Corn Oil
Tank Capacity: 960,000 gallons

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this unit at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 146

Associated Equipment

Associated Emission Unit ID Number: 146.000
Emissions Control Equipment ID Number: CE 146
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 146.000
Emission Unit Description: Dry Germ Silo
Raw Material/Fuel: Dry Germ
Rated Capacity: 200 tons/hr.

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 03-A-131-S1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.01 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 03-A-131-S1

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 83
Stack Diameter, (inches): 6
Exhaust Flow Rate (scfm): 1,100
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-131-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing Completed:

Pollutant – Visible Emissions[1]
Stack Test Completed on – May 28, 2003
Result – No Visible Emissions
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – Iowa DNR Construction Permit 03-A-131

[1] No visible emissions were observed during this test, therefore the Opacity and Particulate Matter tests were waived.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 177

Associated Equipment

Associated Emission Unit ID Numbers: 177.000
Emissions Control Equipment ID Number: CE 177.000
Emissions Control Equipment Description: Fabric Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 177.000
Emission Unit Description: Corn and Dry Feed Ingredients Storage Bin
Raw Material/Fuel: Corn/Dry Ingredients
Rated Capacity: 10,000 bushels

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-973
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.09 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-973

Pollutant: Particulate Matter
Emission Limit(s): 0.09 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-973
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The receiving capacity rate of the storage bins (EU 177 & EU 178) shall be limited to 14,000 tons of corn and dry feed ingredients per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter (CE 177) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the receiving rate of corn and dry feed ingredients for the storage bins (EU 177 & EU 178) in tons per day every day of operation.
2. Maintain a 30-day rolling average of the receiving rate of corn and dry feed ingredients for the storage bins (EU 177 & EU 178) for every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-973

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 40
Stack Diameter (inches): 4
Stack Exhaust Flow Rate (scfm): 1000
Stack Temperature (^{o}F): Ambient
Discharge Type: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 05-A-973

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 178

Associated Equipment

Associated Emission Unit ID Numbers: 178.000
Emissions Control Equipment ID Number: CE 178.000
Emissions Control Equipment Description: Fabric Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 178.000
Emission Unit Description: Corn and Dry Feed Ingredients Storage Bin
Raw Material/Fuel: Corn/Dry Ingredients
Rated Capacity: 10,000 bushels

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-974
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.09 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-974

Pollutant: Particulate Matter
Emission Limit(s): 0.09 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-974
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The receiving capacity rate of the storage bins (EU 177 & EU 178) shall be limited to 14,000 tons of corn and dry feed ingredients per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter (CE 178) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the receiving rate of corn and dry feed ingredients for the storage bins (EU 177 & EU 178) in tons per day every day of operation.
2. Maintain a 30-day rolling average of the receiving rate of corn and dry feed ingredients for the storage bins (EU 177 & EU 178) for every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-974

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 40
Stack Diameter (inches): 4
Stack Exhaust Flow Rate (scfm): 1000
Stack Temperature (^{o}F): Ambient
Discharge Type: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 05-A-974

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 179

Associated Equipment

Associated Emission Unit ID Number: EU 179.000
Emissions Control Equipment ID Number: CE 179
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU 179.000
Emission Unit Description: Pilot Plant Aspiration Unit
Raw Material/Fuel: Germ
Rated Capacity: 575 tons/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-975
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.51 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-975

Pollutant: Particulate Matter
Emission Limit(s): 0.51 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-975
567 IAC 23.3(2)"a"

[1] If visible emissions are observed other than startup, shutdown, or malfunction, the owner/operator will be required to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The process rate of the aspirator (EU 179) shall be limited to 575 tons of process material per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The baghouse (CE 179) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the rate of material processed in the aspirator (EU 179) in tons per day every day of operation.
2. Maintain a 30-day rolling average of the process rate of the aspirator (EU 179) for every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-975

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (scfm): 12,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Obstructed
Authority for Requirement: Iowa DNR Construction Permit 05-A-975

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Opacity
Stack Test to be Completed by (date) - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date.
Test Method - 40 CFR 60, Appendix A, Method 9[(1)]
Authority for Requirement – Iowa DNR Construction Permit 05-A-975

Pollutant – PM-10
Stack Test to be Completed by (date) - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date.
Test Method - 40 CFR 51, Appendix M, 201A with 202[(2)]
Authority for Requirement – Iowa DNR Construction Permit 05-A-975

Pollutant – Particulate Matter
Stack Test to be Completed by (date) - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date.
Test Method - Iowa Compliance Sampling Manual Method 5[(3)]
Authority for Requirement – Iowa DNR Construction Permit 05-A-975

[(1)] Test Run Time = 1 Hour
[(2)] Test Run Time = 6 hours
[(3)] Test Run Time = 4 hours

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 180

Associated Equipment

Associated Emission Unit ID Number: EU 180.000
Emissions Control Equipment ID Number: CE 180
Emissions Control Equipment Description: Cyclone

Emission Unit vented through this Emission Point: EU 180.000
Emission Unit Description: Pilot Plant Pellet Cooler
Raw Material/Fuel: Germ
Rated Capacity: 575 tons/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-976
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.34 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-976

Pollutant: Particulate Matter
Emission Limit(s): 0.34 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-976
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The process rate of the pellet cooler (EU 180) shall be limited to 575 tons of process material per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The cyclone (CE 180) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the rate of material processed in the pellet cooler (EU 180) in tons per day every day of operation.
2. Maintain a 30-day rolling average rate of material processed in the pellet cooler (EU 180) every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-976

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10
Stack Opening, (inches, dia.): 24
Exhaust Flow Rate (scfm): 4000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Obstructed
Authority for Requirement: Iowa DNR Construction Permit 05-A-976

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Opacity
Stack Test to be Completed by (date) - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date.
Test Method - 40 CFR 60, Appendix A, Method 9[(1)]
Authority for Requirement – Iowa DNR Construction Permit 05-A-975

Pollutant – PM-10
Stack Test to be Completed by (date) - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date.
Test Method - 40 CFR 51, Appendix M, 201A with 202[(2)]
Authority for Requirement – Iowa DNR Construction Permit 05-A-975

Pollutant – Particulate Matter
Stack Test to be Completed by (date) - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date.
Test Method - Iowa Compliance Sampling Manual Method 5[(3)]
Authority for Requirement – Iowa DNR Construction Permit 05-A-975

[(1)] Test Run Time = 1 Hour
[(2)] Test Run Time = 3 hours
[(3)] Test Run Time = 2 hours

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 181

Associated Equipment

Associated Emission Unit ID Number: EU 181.000
Emissions Control Equipment ID Number: CE 181
Emissions Control Equipment Description: Mineral Oil Absorber

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Emission Unit vented through this Emission Point: EU 181.000
Emission Unit Description: Pilot Plant Extraction Process
Raw Material/Fuel: Germ
Rated Capacity: 575 tons/day (30 day rolling average)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: VOC's
Emission Limit(s): 214.8 lb/day[1], 39.2 tons/yr
Authority for Requirement: Iowa DNR Construction Permit 05-A-977

[1] Compliance is demonstrated on a 365-day rolling average

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. Solvent loss from the pilot plant shall not exceed 214.8 pounds per day with compliance demonstrated on a 365-day rolling average basis.

Control equipment parameters:
1. The mineral oil absorber (CE 181) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the daily solvent loss in pounds per day as determined from material every day of operation.
2. Maintain a 365-day rolling average of the solvent loss every day of operation.
3. Retain purchase receipts of solvent to support solvent loss from this process.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system. This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

NESHAP:
The equipment associated with this emission point is subject to 40 CFR Part 63 Subpart GGGG – Solvent Extraction for Vegetable Oil Production. The full rule text for this Subpart is included as Appendix D of this permit.
Authority for Requirement: Iowa DNR Construction Permit 05-A-977
40 CFR 63 Subpart GGGG
567 IAC 23.1(4)"cg"

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 182

Associated Equipment

Associated Emission Unit ID Number: EU 182.000
Emissions Control Equipment ID Number: CE 182
Emissions Control Equipment Description: Cyclone

Emission Unit vented through this Emission Point: EU 182.000
Emission Unit Description: Pilot Plant Meal Cooler
Raw Material/Fuel: Germ
Rated Capacity: 575 tons/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-978
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.05 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-978

Pollutant: Particulate Matter
Emission Limit(s): 0.05 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-978
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The process rate of the meal cooler (EU 182) shall be limited to 575 tons of process material per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The cyclone (CE 182) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the process rate of material processed in the meal cooler (EU 182) in tons per day every day of operation.
2. Maintain a 30-day rolling average of the material processed in the meal cooler (EU 182) every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-978

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 20
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 300
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 05-A-978

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: 183

Associated Equipment

Associated Emission Unit ID Number: EU 183.000
Emissions Control Equipment ID Number: CE 183
Emissions Control Equipment Description: Fabric Filter

Emission Unit vented through this Emission Point: EU 183.000
Emission Unit Description: Corn Meal Products Storage Bin
Raw Material/Fuel: Germ
Rated Capacity: 575 tons/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-979
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.02 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-979

Pollutant: Particulate Matter
Emission Limit(s): 0.02 /hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-979
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The receiving capacity rate of the storage bins (EU 183 & EU 184) shall be limited to 575 tons of process material per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter (CE 183) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the receiving rate of process material for the storage bins (EU 183 & EU 184) in tons per day every day of operation.
2. Maintain a 30-day rolling average of the receiving rate of process material for the storage bins (EU 183 & EU 184) for every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-979

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 4
Exhaust Flow Rate (scfm): 200
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 05-A-979

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 184

Associated Equipment

Associated Emission Unit ID Number: EU 184.000
Emissions Control Equipment ID Number: CE 184
Emissions Control Equipment Description: Fabric Filter

Emission Unit vented through this Emission Point: EU 184.000
Emission Unit Description: Corn Meal Products Storage Bin
Raw Material/Fuel: Germ
Rated Capacity: 575 tons/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-980
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.02 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-980

Pollutant: Particulate Matter
Emission Limit(s): 0.02 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-980
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The receiving capacity rate of the storage bins (EU 183 & EU 184) shall be limited to 575 tons of process material per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter (CE 183) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the receiving rate of process material for the storage bins (EU 183 & EU 184) in tons per day every day of operation.
2. Maintain a 30-day rolling average of the receiving rate of process material for the storage bins (EU 183 & EU 184) for every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-980

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 4
Exhaust Flow Rate (scfm): 200
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 05-A-980

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 185

Associated Equipment

Associated Emission Unit ID Number: EU 185.000
Emissions Control Equipment ID Number: CE 185
Emissions Control Equipment Description: Fabric Filter

Emission Unit vented through this Emission Point: EU 185.000
Emission Unit Description: Corm Meal Products Loadout
Raw Material/Fuel: Corn Meal Products
Rated Capacity: 50 tons/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-981
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.51 lb/hr[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-981

Pollutant: Particulate Matter
Emission Limit(s): 0.51 lb/hr.[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-981
567 IAC 23.3(2)"a"

[1] If visible emissions are observed other than startup, shutdown, or malfunction, the owner/operator will be required to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing)

[2] Standard expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The facility shall be limited to a maximum loadout rate of 50 tons of process material per hour with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter (CE 185) on this source shall be maintained and operated according to manufacturer's specifications and instructions..

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the loadout rate of process material in tons per hour every day of operation.
2. Maintain a 30-day rolling average of the loadout rate of process material for every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-981

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (scfm): 12,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Obstructed
Authority for Requirement: Iowa DNR Construction Permit 05-A-981

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Process Group #6 – Ethanol

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Ethanol Limits		
77	77.000	RC Vent
78	78.000	Stillage Evaporator Vent
79	79.000	Ethanol Loadout
85	85.000	CO2 Vent
80	80.000	Ethanol Tank Farm

Ethanol Limits

Emission Points – 77, 78, 79, 85

Associated Equipment

Associated Emission Unit ID Numbers): 77.000, 78.000, 79.000, 85.000

Applicable Requirements

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The production capacity of this group shall be limited to 164,000 gallons of denatured ethanol per day with compliance demonstrated on a 365-day rolling average basis.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the production rate in gallons per day every day of operation.
2. Maintain a 365-day rolling average of the production rate every day of operation.

Authority for Requirement: Iowa DNR Construction Permits 91-A-234S3, 91-A-235S2, 91-A-236S1, 93-A-115S2

Emission Point ID Number: 77

Associated Equipment

Associated Emission Unit ID Number: 77.000
Emissions Control Equipment ID Number: CE 77
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 77.000
Emission Unit Description: RC Vent
Raw Material/Fuel: Ethanol
Rated Capacity: 164,000 gallons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 0.850 lb/hr[1], 3.723 ton/yr[2]
Authority for Requirement: Iowa DNR Construction Permit 91-A-234S3

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. See "Reporting & Record keeping" requirements on page 2.
Authority for Requirement: Iowa DNR Construction Permit 91-A-234-S3

NSPS:
Many pieces of equipment associated with this emission unit are subject to 40 CFR Part 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Please refer to Appendix B for the text of this Subpart. A list of the equipment that is affected by this Subpart shall be readily available for review at the facility.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 89
Stack Diameter (inches): 3
Stack Exhaust Flow Rate (acfm): 2,500
Stack Temperature (^{o}F): 100
Discharge Type: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 91-A-234-S3

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 78

Associated Equipment

Associated Emission Unit ID Number: 78.000
Emissions Control Equipment ID Number: CE 78
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 78.000
Emission Unit Description: Stillage Evaporator
Raw Material/Fuel: Ethanol
Rated Capacity: 164,000 gallons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 0.670 lb/hr[(1)], 2.935 ton/yr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 91-A-235-S2

[(1)] Standard is expressed as the average of 3 runs
[(2)] Standard is a 12-month rolling total.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. See "Reporting & Record keeping" requirements on page 2.
Authority for Requirement: Iowa DNR Construction Permit 91-A-235S1

NSPS:
Many pieces of equipment associated with this emission unit are subject to 40 CFR Part 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Please refer to Appendix B of this permit for the text of this Subpart. A list of the equipment that is affected by this Subpart shall be readily available for review at the facility.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 89
Stack Diameter (inches): 3
Stack Exhaust Flow Rate (acfm): 460
Stack Temperature (^{o}F): 70
Discharge Type: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 91-A-235-S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Volatile Organic Compounds (VOC's)
Stack Test to be Completed by – October 17, 2008
Test Method – 40 CFR 60, Appendix A, Method 25A
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 79

Associated Equipment

Associated Emission Unit ID Number: 79.000
Emissions Control Equipment ID Number: CE 79
Emissions Control Equipment Description: Condenser

Applicable Requirements

Emission Unit vented through this Emission Point: 79.000
Emission Unit Description: Ethanol Loadout
Raw Material/Fuel: Ethanol
Rated Capacity: 164,000 gallons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 7.070 lb/hr, 30.967 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 91-A-236S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 91-A-236S1

NSPS:
Many pieces of equipment associated with this emission unit are subject to 40 CFR Part 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Please refer to Appendix B of this permit for the text of this Subpart. A list of the equipment that is affected by this Subpart shall be readily available for review at the facility.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 18
Stack Diameter (inches): 12
Stack Exhaust Flow Rate (acfm): 1,000
Stack Temperature (^{o}F): 90
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 91-A-236S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: 85

Associated Equipment

Associated Emission Unit ID Numbers: 85.000

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Rated Capacity
85.000	CO_2 Vent	CE 85: Scrubber	Ethanol	164,000 gallons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 11.580 lb/hr[1], 50.720 ton/yr[2, 3]
Authority for Requirement: Iowa DNR Construction Permit 93-A-115S2

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] VOC's may be emitted from either stack.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-115S1

NSPS:
Many pieces of equipment associated with this emission unit are subject to 40 CFR Part 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Please refer to Appendix B of this permit for the text of this Subpart. A list of the equipment that is affected by this Subpart shall be readily available for review at the facility.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

EP 85
Stack Height (feet): 52
Stack Diameter (inches): 16
Stack Exhaust Flow Rate (acfm): 5,250
Stack Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-115S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment:
Monitoring Guidelines
The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the

appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.

5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 80

Associated Equipment

Associated Emission Unit ID Number: 80.000
Emissions Control Equipment ID Number: CE 80
Emissions Control Equipment Description: Internal Floating Roof

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Applicable Requirements

Emission Unit vented through this Emission Point: 80.000
Emission Unit Description: Ethanol Tank Farm
Raw Material/Fuel: Ethanol
Storage Capacity: 1,170,000 gallons

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 6.000 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 91-A-237S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The storage capacity of the tank farm shall be limited to 1,170,000 gallons.

Control equipment parameters:
1. Floating roofs should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 91-A-237S1

NSPS: These tanks shall comply with all applicable requirements of 40 CFR Part 60 Subpart Kb.

60.112b Standard for volatile organic compounds (VOC)

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

60.113b Testing and Procedures

(a) After installing the control equipment required to meet § 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals

no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

60.115b Reporting and Recordkeeping requirements.

The owner or operator of each storage vessel as specified in § 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of § 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 5 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with § 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(1) and § 60.113b(a)(1). This report shall be an attachment to the notification required by § 60.7(a)(3).

(2) Keep a record of each inspection performed as required by § 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in § 60.113b(a)(2) are detected during the annual visual inspection required by § 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in § 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of § 61.112b(a)(1) or § 60.113b(a)(3) and list each repair made.

60.116b Monitoring of Operations
(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m^3 is subject to no provision of this subpart other than those required by this paragraph.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM Method D2879–83, 96, or 97 (incorporated by reference— see § 60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

Authority for Requirement: 40 CFR Part 60 Subpart Kb
567 IAC 23.1(2)"ddd"

<u>Periodic Monitoring Requirements</u>
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #7 – Citric Acid

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
41	41.000	Lime/Precoat Weigh Hopper
44	44.000	Precoat Weigh Hopper
46	46.000	Acid Tank Aspiration
50	50.000	Lime Storage Silo
83	83.000	Citric Acid Solvent Extraction
108.047	108.047	Dry Crystal Handling Aspiration
108.081	108.081	Dry Crystal Cooler
108.082	108.082	Dry Crystal Handling Aspiration 2
118	118.000	LX Shutdown Tank
120	120.000	Citric Backup Generator
172	172	Acidulants Fermenter V

Emission Point ID Number: 41

Associated Equipment

Associated Emission Unit ID Number: 41.000
Emissions Control Equipment ID Number: CE 41
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 41.000
Emission Unit Description: Lime/ Precoat Weigh Hopper
Raw Material/Fuel: Precoat
Rated Capacity: 9,000 tons/month

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 88-A-105S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.039 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 88-A-105S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate shall be limited to 9000 tons per calendar month.

Control equipment parameters:
1. Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the processing rate of lime or precoat in tons per calendar month every month of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 88-A-105S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 78
Stack Diameter (inches): 8
Stack Exhaust Flow Rate (acfm): 900
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 88-A-105S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 44

Associated Equipment

Associated Emission Unit ID Number: 44.000
Emissions Control Equipment ID Number: CE 44
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 44.000
Emission Unit Description: Precoat Weigh Hopper
Raw Material/Fuel: Precoat
Rated Capacity: 4320 tons/month

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.005 gr/scf, 0.027 lb/hr, 0.118 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 88-A-108S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.027 lb/hr, 0.118 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 88-A-108S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate shall be limited to 4320 tons per calendar month.

Control equipment parameters:
1. Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the processing rate of lime or precoat in tons per calendar month every month of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 88-A-108S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 78
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 620
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 88-A-108S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 46

Associated Equipment

Associated Emission Unit ID Number: 46.000
Emissions Control Equipment ID Number: CE 46
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 46.000
Emission Unit Description: Acid Tank Aspiration
Raw Material/Fuel: HCl
Rated Capacity: 2 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: HCl
Emission Limit(s): 0.08 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 88-A-110S1

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 50

Associated Equipment

Associated Emission Unit ID Number: 50.000
Emissions Control Equipment ID Number: CE 50
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 50.000
Emission Unit Description: Lime/Precoat Storage Silo
Raw Material/Fuel: Precoat
Rated Capacity: 9,000 tons/month

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 89-A-150S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.032 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 89-A-150S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate shall be limited to 9000 tons per calendar month.

Control equipment parameters:
1. Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the processing rate of lime or precoat in tons per calendar month every month of operation.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 89-A-150S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 58
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (acfm): 750
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 89-A-150S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 83

Associated Equipment

Associated Emission Unit ID Number: 83.000
Emissions Control Equipment ID Number: CE 83
Emissions Control Equipment Description: Condenser

Applicable Requirements

Emission Unit vented through this Emission Point: 83.000
Emission Unit Description: Citric Acid Solvent Extraction
Raw Material/Fuel: Solvent
Tank Capacity: 114,000 gallons

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 2.00 lb/hr, 8.760 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-005S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The tank volume aspirated by this condenser is 114,000 gallons.

Control equipment parameters:
1. Condenser control should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-005S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 50
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 100
Stack Temperature (^{o}F): 50
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-005S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 108.047

Associated Equipment

Associated Emission Unit ID Number: 108.047
Emissions Control Equipment ID Number: CE 108.047
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 108.047
Emission Unit Description: Dry Crystal Handling Aspiration
Raw Material/Fuel: Citric Acid
Rated Capacity: 150 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 88-A-111S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 1.243 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 88-A-111S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate shall be limited to 150 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the processing rate of dry citric acid in tons per day every day of operation.
2. Maintain a 30-day rolling average of the processing rate of dry citric acid every day of operation.
3. Record the pressure drop across the scrubber weekly, and compare with the pressure drop recorded during compliance testing.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 88-A-111S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 148
Stack Diameter (inches): 30
Stack Exhaust Flow Rate (acfm): 13,500
Stack Temperature (^{o}F): 125
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 88-A-111S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment:

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop gauge shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.

5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 108.081

Associated Equipment

Associated Emission Unit ID Number: 108.081
Emissions Control Equipment ID Number: CE 108.081
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 108.081
Emission Unit Description: Dry Crystal Cooler
Raw Material/Fuel: Citric Acid
Rated Capacity: 176 tons/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 92-A-103S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 2.06 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 92-A-103S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate of dry citric acid shall be limited to 176 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the processing rate in tons per day every day of operation.
2. Maintain a 30-day rolling average of the processing rate every day of operation.
3. Record the pressure drop across the scrubber weekly, and compare with the pressure drop recorded during compliance testing.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 92-A-103S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 130
Stack Diameter (inches): 30
Stack Exhaust Flow Rate (acfm): 12,700
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 92-A-103S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:[(1)]

Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

[(1)] Testing on this emission point shall be considered to be a representative test for EP's 108.047 and 108.082.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment:

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop gauge shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.

5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 108.082

Associated Equipment

Associated Emission Unit ID Number: 108.082
Emissions Control Equipment ID Number: CE 108.082
Emissions Control Equipment Description: Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 108.082
Emission Unit Description: Dry Crystal Handling Aspiration 2
Raw Material/Fuel: Sodium Citrate/Potassium Citrate
Rated Capacity: 72 ton/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 92-A-104S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.773 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 92-A-104S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The processing rate shall be limited to 72 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:
1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the processing rate of dry product in tons per day every day of operation.
2. Maintain a 30-day rolling average of the processing rate of dry product every day of operation.
3. Record the pressure drop across the scrubber weekly, and compare with the pressure drop recorded during compliance testing.
4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 92-A-104S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 113
Stack Diameter (inches): 20
Stack Exhaust Flow Rate (acfm): 6,350
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 92-A-104S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If

all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 118

Associated Equipment

Associated Emission Unit ID Number: 118.000

Applicable Requirements

Emission Unit vented through this Emission Point: 118.000
Emission Unit Description: LX Shutdown Tank
Raw Material/Fuel: Solvent
Rated Capacity: 37,605 gallons

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC's)
Emission Limit(s): 3.00 lb/hr, 12.00 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 95-A-069S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 95-A-069S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 30
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (acfm): 30
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 95-A-069S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 120

Associated Equipment

Associated Emission Unit ID Number: 120.000

Applicable Requirements

Emission Unit vented through this Emission Point: 120.000
Emission Unit Description: Citric Backup Generator
Raw Material/Fuel: Distillate Fuel Oil
Rated Capacity: 40.4 gal/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 1.29 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 96-A-1040

Pollutant: Particulate Matter
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Pollutant: Nitrogen Oxides (NO_2)
Emission Limit(s): 18.95 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 96-A-1040

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Hours of operation:
1. The Citric Backup Generator is to be operated no more than 500 hours per 12-month rolling period.

Process throughput:

1. Fuel usage in the Citric Backup Generator is limited to diesel fuel which contains a sulfur content of 0.05% by weight or less.
2. The owner or operator is required to operate the Citric Backup Generator within the operating limits specified by its manufacturer.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Fuel supplier's analysis of diesel fuel used in the Citric Backup Generator which shows weight percentage of sulfur in diesel fuel.
2. Record of time periods when the Citric Backup Generator is operating.
3. Total hours of operation for the Citric Acid Plant Backup Generator.
4. Log of maintenance and repairs performed on the Citric Backup Generator.

Authority for Requirement: Iowa DNR Construction Permit 96-A-1040

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 20
Stack Diameter (inches): 9
Stack Exhaust Flow Rate (acfm): 4,700
Stack Temperature (^{o}F): 770
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 96-A-1040

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 172

Associated Equipment

Associated Emission Unit ID Number: 172

Emission Unit vented through this Emission Point: 172
Emission Unit Description: Acidulants Fermenter V
Raw Material/Fuel: Acidulant Products
Rated Capacity: 443 tons/day (30 day rolling average)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-786-S1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: VOC's
Emission Limit(s): 1.43 lb/hr[2], 50 ppmv
Authority for Requirement: Iowa DNR Construction Permit 05-A-786-S1

Pollutant: Total HAP's
Emission Limit(s): 1.43 lb/hr[2], 50 ppmv
Authority for Requirement: Iowa DNR Construction Permit 05-A-786-S1

[1] An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. For each change in product made in this vessel, record the date and time of the start of the initial batch along with the name of the product being produced.

Authority for Requirement: Iowa DNR Construction Permit 05-A-786-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 90
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): *
Exhaust Temperature (°F): *
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 05-A-786-S1

* The exhaust temperature is dependent on process parameters. The temperature may range from 70 °F to 120 °F. The exhaust flowrate is dependent on the air feed into the system. This will vary depending on process parameters, but may be as high as 4000 scfm.

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant – Total HAP's
Stack Test Completed on – April 19, 2006
Authority for Requirement - Iowa DNR Construction Permit 05-A-786-S1

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Process Group #8 – Dry Products

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Evaporation Limits		
91	91.000	Drying & Cooling 1
	91.117	Conditioning Dryer 1
93	93.000	Sifter Filter Receiver
94	94.000	Air Swept Hammermill
95	95.000	Dry Sweetener Silo
97	97.000	Bulk Bagger
98	98.000	Recycle Filter Receiver
127	127.000	Sifter Filter Receiver 2

Evaporation Limits

Emission Points – 91, 93, 94, 95, 97, 98

Associated Equipment

Associated Emission Unit ID Numbers: 91.000, 91.117, 93.000, 94.000, 95.000, 97.000, 98.000

Applicable Requirements

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The evaporation rate shall be limited to 134,400 pounds per day with compliance demonstrated on a 30-day rolling average basis.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Estimate and record the evaporation rate of water in pounds per day every day of operation.
2. Maintain a 30-day rolling average of the evaporation rate of water every day of operation

Authority for Requirement: Iowa DNR Construction Permits 93-A-065S3, 95-A-427S2, 93-A-066S1, 93-A-067S1, 93-A-068S1, 93-A-070S1, 93-A-071S1

Note:

This Process Group is currently shut down for an indefinite time period. The facility must notify the Department at least 15 days prior to start-up of this Process Group. All record keeping and monitoring requirements for this Process Group must commence at the time of startup.

Emission Point ID Number: 91

Associated Equipment

Associated Emission Unit ID Numbers: 91.000, 91.117

Applicable Requirements

EU= Emission Unit

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Evaporation Rate
91.000	Drying/Cooling 1	CE 91.000: Niro Scrubber	Sweeteners, Natural Gas	28.8 MMBtu/hr	134,400 lbs of water/day,
91.117	Conditioning Dryer 1	CE 91.117: Baghouse	Sweeteners	NA	134,400 lbs of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

EU	Opacity	PM-10	PM	Sulfur Dioxide (SO_2)	Nitrogen Oxide (NO_x)	Volatile Organic Compounds	Authority for Requirement
91.000	0%	7.0 lb/hr	7.0 lb/hr	0.031 lb/hr	7.00 lb/hr	0.351 ton/yr	93-A-065S3, 567 IAC 23.3(2)"d"
91.117	0%	0.73 lb/hr	0.73 lb/hr	NA	NA	NA	95-A-427S2, 567 IAC 23.3(2)"d",

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

EU's 91.000 and 91.117

Process throughput:

1. See "Process throughput" limits on page 2.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permits 93-A-065S3, 95-A-427S2

EU 91.000
Process throughput:
1. The burner capacity shall be limited to 28.8 MMBtu/hr.

Control equipment parameters:
1. The scrubber shall be maintained and operated according to manufacturer's specifications and instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. Record the pressure drop across the scrubber weekly, and compare to the pressure drop recorded during the compliance test.
2. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.

Authority for Requirement: Iowa DNR Construction Permit 93-A-065S3

EU 91.117
Control equipment parameters:
1. The fabric filter shall be maintained and operated according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.

Authority for Requirement: Iowa DNR Construction Permit 95-A-427S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Characteristics
Stack Height (feet): 185
Stack Diameter (inches): 66
Stack Exhaust Flow Rate (scfm): 82,000
Stack Temperature (^{o}F): 130
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permits 93-A-065S3, 95-A-427S2

Emission Unit Characteristics

EU	Flowrate (scfm)	Authority for Requirement
91.000	65,000	93-A-065S3
91.117	17,000	95-A-427S2

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

To be tested with both emission units operating at or near full capacity.
Pollutant – Particulate Matter
Stack Test to be Completed – Within 90 days from startup.
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement – 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Opacity:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >0 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: **For CE 91.000: Niro Scrubber**

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the Department and conduct source testing

within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with the emission limits, then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring Methods & Corrective Actions

1. General
   - Periodic Monitoring is not required during periods of time greater than one day which the source does not operate.
2. Monthly
   - The control equipment will be inspected for any obvious signs of malfunction, such as leaks, cleaning system failure, plugging, etc.
   - The pressure drop gauge shall be examined for proper operation.
   - All filters and emission test ports shall be inspected for proper labels.

If abnormal conditions are detected the appropriate measures for remediation will be initiated within eight (8) hours.

3. Annually
   - Conduct an internal inspection of the scrubbers to search for signs of erosion, corrosion, or solids deposits in ductwork, and spray nozzles.
   - The control equipment will be thoroughly inspected for wear, including structural components, the housing, all welds and bolts, and the cleaning system. The results of this inspection will be recorded.

If any of the above conditions exist the appropriate measures for remediation will be implemented before the system is returned to service.

4. Record keeping/Reporting
   - Whenever maintenance; if performed on a piece of control equipment, a copy of the completed work order or similar documentation will be recorded.
   - When an emission exceedence occurs, a report will be filed with IDNR.
   - All documentation shall be kept on file at the facility for a minimum of five (5) years.

5. Quality Control
   - All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐
(For CE 91.117: Baghouse)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 93

Associated Equipment

Associated Emission Unit ID Number: 93.000
Emissions Control Equipment ID Number: CE 93
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 93.000
Emission Unit Description: Sifter Filter Receiver
Raw Material/Fuel: Sweeteners
Evaporation Rate: 134,400 pounds of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.055 lb/hr, 0.241 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-066S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.055 lb/hr, 0.241 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-066S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-066S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (inches): 14
Stack Exhaust Flow Rate (acfm): 1,400
Stack Temperature (^{o}F): 115
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-066S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 94

Associated Equipment

Associated Emission Unit ID Number: 94.000
Emissions Control Equipment ID Number: CE 94
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 94.000
Emission Unit Description: Air Swept Hammermill
Raw Material/Fuel: Sweeteners
Evaporation Rate: 134,400 pounds of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.450 lb/hr, 1.971 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-067S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.450 lb/hr, 1.971 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-067S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-067S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (inches): 16
Stack Exhaust Flow Rate (acfm): 11,300
Stack Temperature (^{o}F): 110
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-067S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter
Stack Test to be Completed – Within 90 days from startup.
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement – 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 95

Associated Equipment

Associated Emission Unit ID Number: 95.000
Emissions Control Equipment ID Number: CE 95
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 95.000
Emission Unit Description: Dry Sweetener Silo
Raw Material/Fuel: Sweeteners
Evaporation Rate: 134,400 pounds of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.122 lb/hr, 0.534 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-068S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.122 lb/hr, 0.534 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-068S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-068S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (inches): 20
Stack Exhaust Flow Rate (acfm): 3,070
Stack Temperature (^{o}F): 110
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-068S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 97

Associated Equipment

Associated Emission Unit ID Number: 97.000
Emissions Control Equipment ID Number: CE 97
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 95.000
Emission Unit Description: Bulk Bagger
Raw Material/Fuel: Sweeteners
Evaporation Rate: 134,400 pounds of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.116 lb/hr, 0.508 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-070S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.116 lb/hr, 0.508 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-070S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-070S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (inches): 8
Stack Exhaust Flow Rate (acfm): 2,800
Stack Temperature (^{o}F): 90
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-070S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 98

Associated Equipment

Associated Emission Unit ID Number: 98.000
Emissions Control Equipment ID Number: CE 98
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 98.000
Emission Unit Description: Recycle Filter
Raw Material/Fuel: Sweeteners
Evaporation Rate: 134,400 pounds of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.140 lb/hr, 0.613 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-071S1

Pollutant: Particulate Matter
Emission Limit(s): 0.005 gr/scf, 0.140 lb/hr, 0.613 ton/yr
Authority for Requirement: Iowa DNR Construction Permit 93-A-071S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. See "Process throughput" limits on page 2.

Control equipment parameters:
1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. See "Reporting & Record keeping" requirements on page 2.
2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: Iowa DNR Construction Permit 93-A-071S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (inches): 12
Stack Exhaust Flow Rate (acfm): 3,630
Stack Temperature (^{o}F): 130
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 93-A-071S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 127

Associated Equipment

Associated Emission Unit ID Number: 127.000
Emissions Control Equipment ID Number: CE 127
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 127.000
Emission Unit Description: Sifter Filter Aspiration 2
Raw Material/Fuel: Sweeteners
Evaporation Rate: 134,400 pounds of water/day

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20%
Authority for Requirement: Iowa DNR Construction Permit 97-A-337
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: Iowa DNR Construction Permit 97-A-337
567 IAC 23.3(2)"a"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control equipment parameters:
1. The fabric filter shall be operated and maintained according to manufacturer's instructions.

Reporting & Record keeping:
Records shall be kept on site for at least five years and shall be available for inspection by the Department.
1. The operator shall keep a maintenance log for this source.

Authority for Requirement: Iowa DNR Construction Permit 97-A-337

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (inches): 12
Stack Exhaust Flow Rate (acfm): 1,600
Stack Temperature (^{o}F): 115
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 97-A-337

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity:
The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #9 – Itaconic Acid

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
122	122.000	Itaconic Acid Flash Dryer
123	123.000	Itaconic Acid Storage Silo
124	124.000	Itaconic Acid Transfer Receiver
125	125.000	Lime Dissolve Tank Aspiration
126	126.000	Itaconic Acid Lime Storage Bin
130	130.000	BaCO3 Dissolve Tank Aspiration
131	131.000	Itaconic Acid Packaging Asp.
132	132.000	Itaconic Acid Flash Cooler

Itaconic Acid

Emission Points – See Table Below

Associated Equipment

Associated Emission Unit ID Numbers: See Table Below

Applicable Requirements

EP= Emission Point EU= Emission Unit

EP	EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity
122	122.000	Itaconic Acid Flash Dryer	CE 122: Baghouse	Itaconic Acid	45 tons/day (30 day rolling average)
123	123.000	Itaconic Acid Storage Silo	CE 123: Baghouse	Itaconic Acid	
124	124.000	Itaconic Acid Transfer Receiver	CE 124: Baghouse	Itaconic Acid	
125	125.000	Lime Dissolve Tank Aspiration	CE 125: Scrubber	Lime	
126	126.000	Itaconic Acid Lime Storage Bin	CE 126: Baghouse	Lime	
130	130.000	BaCO3 Dissolve Tank Aspiration	CE 130: Scrubber	$BaCO_3$	
131	131.000	Itaconic Acid Packaging Aspiration	CE 131: Baghouse	Itaconic Acid	
132	132.000	Itaconic Acid Flash Cooler	CE 132: Baghouse	Itaconic Acid	

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

EP	Opacity	PM-10	PM	Authority for Requirement
122	40%[1]	0.68 lb/hr[3]	0.1 gr/dscf	97-A-1093S3, 567 IAC 23.3(2)"d", 23.3(2)"a"
123	40%[2]	0.07 lb/hr[3]	0.1 gr/scf, 1.63 ton/yr	97-A-1094S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
124	40%[2]	0.11 lb/hr[3]	0.1 gr/scf, 2.04 ton/yr	97-A-1095S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
125	40%[2]	0.086 lb/hr[3]	0.1 gr/scf, 3.49 ton/yr	97-A-1096S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
126	40%[2]	0.06 lb/hr[3]	0.1 gr/scf, 1.3 ton/yr	97-A-1097S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
130	40%[2]	0.086 lb/hr[3]	0.1 gr/scf, 3.5 ton/yr	97-A-1098S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
131	40%[2]	0.16 lb/hr[3]	0.1 gr/scf, 2.65 ton/yr	97-A-1099S2, 567 IAC 23.3(2)"d", 23.3(2)"a"
132	40%[2]	0.046 lb/hr[3]	0.1 gr/scf	99-A-201S1, 567 IAC 23.3(2)"d", 23.3(2)"a"

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] If visible emissions are observed other than start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance.

[3] Standard is expressed as the average of 3 runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The processing rate of the Itaconic Acid Process group shall be limited to 45 tons of Itaconic Acid product per day with compliance demonstrated on a 30-day rolling average.

Control equipment parameters:

1. The control equipment will be operated and maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Maintain a 30-day rolling total of the Itaconic Acid every day of operation.
2. A record of all maintenance and repairs made to the control equipment.

Authority for Requirement: Iowa DNR Construction Permits 97-A-1093S3, 97-A-1094S2, 97-A-1095S2, 97-A-1096S2, 97-A-1097S2, 97-A-1098S2, 97-A-1099S2, 99-A-021S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP	Stack Height (feet)	Stack Diameter (inches)	Stack Exhaust Rate (scfm)	Stack Temperature (^{o}F)	Discharge Type	Authority For Requirement
122	94	15	4,631	220	Vertical Unobstructed	97-A-1093S3
123	94	6	852	90	Vertical Unobstructed	97-A-1094S2
124	69' 9"	10	1,360	100	Vertical Unobstructed	97-A-1095S2
125	138	8	500	120	Vertical Unobstructed	97-A-1096S2
126	138	10	703	200	Vertical Unobstructed	97-A-1097S2
130	94	8	500	120	Vertical Unobstructed	97-A-1098S2
131	69' 9"	8	1,862	Ambient	Vertical Unobstructed	97-A-1099S2
132	94	8	581	110	Vertical Unobstructed	99-A-021S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing (EP 122):

Pollutant – Particulate Matter
Stack Test to be Completed by – October 17, 2008
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐
(Required for all associated control equipment)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Process Group #10 – GAP

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
142	142	GAP Reactors
143	143	GAP Tank Farm
144	144	GAP Packaging
145	145	GAP Dryer
175	175	Biomass Dryer
176	176	GAP Packaging

NESHAP:*
The GAP Process Group is subject to 40 CFR Part 63 Subpart FFFF-Miscellaneous Organic Chemical Manufacturing. The rule text is attached to this permit as Appendix F.

*Cargill has filed an appeal of the Department's determination that Iowa DNR Construction Permit Project Number 05-659 subjects the GAP Process to 40 CFR Part 63 Subpart FFFF.

Emission Point ID Number: 142

Associated Equipment

Associated Emission Unit ID Number: 142
Emissions Control Equipment ID Number: CE-142
Emissions Control Equipment Description: Scrubber

Emission Unit vented through this Emission Point: 142
Emission Unit Description: GAP Reactors
Raw Material/Fuel: GAP
Rated Capacity: 15,000 lb/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 02-A-393-S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.86 lb/hr.[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-393-S3

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-393-S3
567 IAC 23.3(2)"a"

Pollutant: VOC's
Emission Limit(s): 1.14 lb/hr.[2], 4.99 tons/yr.[3]
Authority for Requirement Iowa DNR Construction Permit 02-A-393-S3

Pollutant: Hydrogen Chloride (HCl)
Emission Limit(s): 0.80 lb/hr[2], 3.50 tons/yr.[3]
Authority for Requirement: Iowa DNR Construction Permit 02-A-393-S3

[1] An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.
[3] Standard is a 12-month rolling total.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The scrubber (CE-142) shall be operated whenever the GAP reactors are in use.
2. The GAP reactors (EU-142) are limited to a maximum of 15,000 pounds of final product per day, based on a 30-day rolling average.

Control equipment parameters:

1. The scrubber (CE-142) shall be operated and maintained according to the manufacturer's recommendations.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the amount of final product from the GAP reactors. Compliance shall be determined on a 30-day rolling average.

Authority for Requirement: Iowa DNR Construction Permit 02-A-393-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 85
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 1000
Exhaust Temperature (°F): 80
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 02-A-393-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR 60, Appendix A, Method 9[(1)]
Authority for Requirement - Iowa DNR Construction Permit 02-A-393-S3

Pollutant - Particulate Matter
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR, Appendix A, Method 5[(1)]
Authority for Requirement - Iowa DNR Construction Permit 02-A-393-S3

Pollutant – VOC's
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR 60, Appendix A, Method 25A [(1)]
Authority for Requirement - Iowa DNR Construction Permit 02-A-393-S3

Pollutant - Hydrochloric Acid (HCl)
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR 60, Appendix A, Method 26[(2)]
Authority for Requirement - Iowa DNR Construction Permit 02-A-393-S3

[(1)] Test Run Time = 1 hour

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 143

Associated Equipment

Associated Emission Unit ID Number: 143
Emissions Control Equipment ID Number: CE-143
Emissions Control Equipment Description: Mist Eliminator

Emission Unit vented through this Emission Point: 143
Emission Unit Description: GAP Tank Farm
Raw Material/Fuel: GAP
Rated Capacity: 15,000 lb/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 02-A-394-S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.86 lb/hr.[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-394-S2

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-394-S2
567 IAC 23.3(2)"a"

Pollutant: Hydrochloride (HCl)
Emission Limit(s): 0.46 lb/hr[2], 2.01 tons/yr.[3]
Authority for Requirement: Iowa DNR Construction Permit 02-A-394-S2

[1] An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.
[3] Standard is a 12-month rolling total.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The scrubber (CE-143) shall be operated whenever the GAP tank farm is in use.
2. The GAP tank farm covered by this permit (EU-143) is limited to a maximum of 15,000 pounds of final product per day, based on a 30-day rolling average.

Control equipment parameters:

1. The scrubber on this unit shall be operated and maintained according to the manufacturer's recommendations.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the amount of final product from the GAP tank farm. Compliance shall be determined on a 30-day rolling average.

Authority for Requirement: Iowa DNR Construction Permit 02-A-394-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 92
Stack Opening, (inches, dia.): 4
Exhaust Flow Rate (scfm): 1000
Exhaust Temperature (°F): 80
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 02-A-394-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 144

Associated Equipment

Associated Emission Unit ID Number: 144
Emissions Control Equipment ID Number: CE-144
Emissions Control Equipment Description: Dust Collector

Emission Unit vented through this Emission Point: 144
Emission Unit Description: GAP Packaging
Raw Material/Fuel: GAP
Rated Capacity: 15,000 lb/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 02-A-395-S2
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.26 lb/hr.[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-395-S2

Pollutant: Particulate Matter
Emission Limit(s): 0.26 lb/hr[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-395-S2
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The dust collector on this unit shall be operated whenever the GAP packaging line is in use.
2. The GAP packaging covered by this permit is limited to a maximum of 15,000 pounds of final product per day, based on a 30-day rolling average.

Control equipment parameters:

1. The dust collector on this unit shall be operated and maintained according to the manufacturer's recommendations.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the amount of final product from the GAP packaging. Compliance shall be determined on a 30-day rolling average.

Authority for Requirement: Iowa DNR Construction Permit 02-A-395-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 92
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 2000
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 02-A-395-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 145

Associated Equipment

Associated Emission Unit ID Number: 145
Emissions Control Equipment ID Number: CE-145
Emissions Control Equipment Description: Dust Collector

Emission Unit vented through this Emission Point: 145
Emission Unit Description: GAP Dryer
Raw Material/Fuel: GAP
Rated Capacity: 15,000 lb/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 02-A-396-S3
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.45 lb/hr.[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-396-S3

Pollutant: Particulate Matter
Emission Limit(s): 0.45 lb/hr[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 02-A-396-S3
567 IAC 23.3(2)"a"

Pollutant: Hydrogen Chloride (HCl)
Emission Limit(s): 0.40 lb/hr[2], 1.75 tons/yr.[3]
Authority for Requirement: Iowa DNR Construction Permit 02-A-396-S3

[1] An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.
[3] Standard is a 12-month rolling total.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The dust collector (CE-145) shall be operated whenever the GAP dryer is in use.
2. The GAP Dryer covered by this permit (EU-145) is limited to a maximum of 15,000 pounds of final product per day, based on a 30-day rolling average.

Control equipment parameters:

1. The dust collector (CE-145) shall be operated and maintained according to the manufacturer's recommendations.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the amount of final product from the GAP dryer. Compliance shall be determined on a 30-day rolling average.

Authority for Requirement: Iowa DNR Construction Permit 02-A-396-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 92
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): 1,250 (flash mode), 3,500 (fluidized bed mode)
Exhaust Temperature (°F): 160
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 02-A-396-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Opacity
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR, Appendix A, Method 9[(1)]
Authority for Requirement - Iowa DNR Construction Permit 02-A-396-S3

Pollutant - Particulate Matter
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR, Appendix A, Method 5[(2)]
Authority for Requirement - Iowa DNR Construction Permit 02-A-396-S3

[(1)] Test Run Time = 1 hour
[(2)] Test Run Time = 2 hours

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 175

Associated Equipment

Associated Emission Unit ID Number: 175
Emissions Control Equipment ID Number: CE-175
Emissions Control Equipment Description: Scrubber

Emission Unit vented through this Emission Point: 175
Emission Unit Description: Biomass Dryer
Raw Material/Fuel: GAP
Rated Capacity: 15,000 lb/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-930
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.32 lb/hr.[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-930

Pollutant: Particulate Matter
Emission Limit(s): 0.32 lb/hr[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-930
567 IAC 23.3(2)"a"

Pollutant: VOC's
Emission Limit(s): 0.80 lb/hr[2], 3.5 tons/yr.[3]
Authority for Requirement: Iowa DNR Construction Permit 05-A-930

[1] An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.
[3] Standard is a 12-month rolling total.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The scrubber (CE-175) shall be operated whenever the Biomass dryer is in use.
2. The Biomass dryer covered by this permit (EU-175) is limited to a maximum of 15,000 pounds of final product per day, based on a 30-day rolling average.

Control equipment parameters:

1. The scrubber (CE-175) shall be operated and maintained according to the manufacturer's recommendations.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the amount of final product from the Biomass dryer. Compliance shall be determined on a 30-day rolling average.

Authority for Requirement: Iowa DNR Construction Permit 05-A-930

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 1500
Exhaust Temperature (°F): 180
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 05-A-930

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Opacity
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR, Appendix A, Method 9[(1)]
Authority for Requirement - Iowa DNR Construction Permit 05-A-930

Pollutant - Particulate Matter
Stack Test to be Completed by - within 60 days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date
Test Method - 40 CFR, Appendix A, Method 5[(1)]
Authority for Requirement - Iowa DNR Construction Permit 05-A-930

[(1)] Test Run Time = 1 hour

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 176

Associated Equipment

Associated Emission Unit ID Number: 176
Emissions Control Equipment ID Number: CE-176
Emissions Control Equipment Description: Dust Collector

Emission Unit vented through this Emission Point: 176
Emission Unit Description: GAP Packaging
Raw Material/Fuel: GAP
Rated Capacity: 15,000 lb/day

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %[1]
Authority for Requirement: Iowa DNR Construction Permit 05-A-931
567 IAC 23.3(2)"d"

Pollutant: PM-10
Emission Limit(s): 0.03 lb/hr.[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-931

Pollutant: Particulate Matter
Emission Limit(s): 0.03 lb/hr[2], 0.1 gr/dscf[2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-931
567 IAC 23.3(2)"a"

[1] An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of three runs.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. The dust collector (CE-176) shall be operated whenever the GAP dryer is in use.
2. The GAP packaging covered by this permit (EU-176) is limited to a maximum of 15,000 pounds of final product per day, based on a 30-day rolling average.

Control equipment parameters:

1. The dust collector (CE-176) shall be operated and maintained according to the manufacturer's recommendations.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Calculate and record the amount of final product from the GAP Packaging. Compliance shall be determined on a 30-day rolling average.

Authority for Requirement: Iowa DNR Construction Permit 05-A-931

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 300
Exhaust Temperature (°F): 90
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 05-A-931

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for

determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
    a. Form 1.0 "Facility Identification";
    b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
    c. Form 5.0 "Title V annual emissions summary/fee"; and
    d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
    a. Form 1.0 "Facility Identification";
    b. Form 5.0 "Title V annual emissions summary/fee";
    c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges
Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:
1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information
The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties
The owner or operator of any air emission source or control equipment shall:
1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring
1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
   a. The date, place and time of sampling or measurements
   b. The date the analyses were performed.
   c. The company or entity that performed the analyses.
   d. The analytical techniques or methods used.
   e. The results of such analyses; and
   f. The operating conditions as existing at the time of sampling or measurement.
   g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.

b. Maintain a log at the permitted facility of the scenario under which it is operating.

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;

b. Compliance test methods specified in 567 Chapter 25; or

c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or

b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review

of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control

of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.

b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);

c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);

d. The changes are not subject to any requirement under Title IV of the Act.

e. The changes comply with all applicable requirements.

f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,

ii. The date on which the change will occur,

iii. Any change in emission as a result of that change,

iv. The pollutants emitted subject to the emissions trade

v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that is required to do any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.

iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

ii. The permittee's suggested draft permit

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review

by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations, training fires and controlled burning of a demolished building. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 <u>except</u> 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

    a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

    b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

    c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

    d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit; or

b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.
Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2
P.O. Box 1443
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Polk County Public Works Dept.
Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health Dept.
Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

Appendix A: Air Quality Policy 3-b-08
Indicator Opacity

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

POLICY/PROCEDURE STATEMENT

TOPIC: **Opacity Limits**

Policy Procedure Number: 3-b-08 **Replaces Number: None**

Date: **Effective Date:** November 12, 1998

Preparer: David Phelps **Reviewer:**

Approval: Bureau Chief: Peter Hamlin **Date:** 11/12/98

Division Administrator: Allan Stokes **Date:** 11/12/98

Applicable Code of Iowa or Iowa Administrative Code Rule: 23.3(2)d

"No person shall allow, cause or permit the emission of visible air contaminants into the atmosphere from any equipment, internal combustion engine, premise fire, open fire or stack, equal to or in excess of 40 percent opacity or that level specified in a construction permit, except as provided below and in 567-Chapter 24."

REASON OR BACKGROUND

The default opacity limit allowed by regulation is 40%. This limit was established with the original regulations in 1970. It is generally accepted that opacity greater than 40% was evidence of a mass emission standard exceedence. More recently, there have been requests from facilities for limits much lower than that allowed by the regulations, in some cases less than 0.01 gr/scf to which a 40% opacity limit does not correspond. Since opacity is used as an indicator of the particulate emission rate, listing an indicated potential problem opacity that is more in line with the mass emission rate is useful. In order to have the authority to set limits lower than 40%, subrule 23.3(2)d was changed. This change allows the department the ability to set opacity limits at a level that more closely corresponds to what would be observed by the source when operating in compliance with its mass emission rate.

Except in the case where a specific opacity limit is established by rule, it has been the general policy of the Department not to take action on opacity limits directly. Rather, if it is felt that a violation of the mass emission rate exists that is not attributable to some abnormal event, a stack test would be required to verify compliance. However, the Department reserves the right to use the results of formal opacity readings as evidence of an exceedence.

DETAILS

It shall be the policy of the Department to list the default opacity as a permit condition and in addition an indicator opacity may be listed.

For ease of proving continual compliance a source may request a 'no visible emissions' opacity limit which allows proof of compliance without having a certified opacity reading taken. In this case any visible emissions would be an exceedence.

The IDNR permit writer may list an opacity that will be a indicator of possible mass emission rate exceedence. If the permitee wishes, the recommended indicator opacity may be changed by demonstrating compliance with the mass emission rate during a stack test while emitting the new desired indicator opacity. If the tested mass emission rate is less than the permitted emission rate, then the desired indicator opacity may be set at a proportionally higher level than observed during the stack test.

If an opacity measurement, taken in accordance with an approved reference method for opacity, (generally USEPA Method 9 or 22) exceeds the indicator opacity then the facility will promptly investigate the source and make corrections. However, if after corrections are made the opacity continues to exceed the indicator opacity the Department may require additional proof to demonstrate compliance with the mass emissions limits.

Recommended indicator opacities shall be:

Grain Loading gr./scf	Recommended Indicator Opacity
<0.01 gr./scf	non specified in permit *
0.01 to 0.06 gr./scf	10% Opacity
0.061 to 0.08 gr./scf	20% Opacity
0.081 to 0.1 gr./scf	25% Opacity

* A line is added to the permit that states: "If visible emissions are observed other that start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard."

If a source is a batch process the indicator opacity shall be based on the table above, but the opacity averaging period, for comparison to the indicator opacity, shall be the entire batch cycle. For purposes of comparison to the indicator opacity readings shall be taken during the entire cycle and averaged.

Sources are also given the opportunity to set source specific limits to be coordinated with the initial compliance test. These may then be incorporated into the permit.

In all cases an exceedence of the indicator opacity will require the permitee to file an "indicator opacity exceedence report" to the IDNR regional office. The reporting requirements shall be:

Oral report of excess indicator opacity. An incident of excess indicator opacity (other than an incident of excess indicator opacity during a period of startup, shutdown, or cleaning) shall be reported to the appropriate regional office of the department within eight hours of, or at the start of the first working day following the onset of the of the incident. The reporting exemption for an incident of excess indicator opacity during startup and shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in subrule 25.1(6).

An oral report of excess indicator opacity is not required for a source with operational continuous monitoring equipment (as specified in subrule 25.1(1) if the incident of excess indicator opacity continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity.

The oral report may be made in person or by telephone and shall include as a minimum the following:

a) The identity of the equipment or source operation form which the excess indicator opacity originated and the associated stack or emission point.
b) The estimated quantity of the excess indicator opacity.
c) The time and expected duration of the excess indicator opacity.
d) The cause of the excess indicator opacity.
e) The steps being taken to remedy the excess indicator opacity.
f) The steps being taken to limit the excess indicator opacity in the interim period.

Written report of excess indicator opacity. A written report of an incident of excess indicator opacity shall be submitted as a follow-up to all required oral reports to the department within seven (7) days of the onset of the upset condition, and shall include as a minimum the following:

a) The identity of the equipment or source operation point from which the excess emission originate and the associated stack or emission point.
b) The estimated quantity of the excess indicator opacity.
c) The time and duration of the excess indicator opacity.
d) The cause of the excess indicator opacity.
e) The steps that were taken to remedy and to prevent the recurrence of the incident of excess indicator opacity.
f) The steps that were taken to limit the excess indicator opacity.
g) If the owner claims that the excess indicator opacity was due to malfunction, documentation to support this claim.

Exceptions to this policy:

1) In the case where a facility has an opacity limit established in an existing permit, no change will be made to that permit limit unless the permit is being modified for other purposes.
2) If the facility has a continuous opacity monitor, this policy shall not apply.
3) This policy shall not apply to opacity limits established in Prevention of Significant Deterioration (PSD) permits or permits that were established for maintenance plans for nonattainment areas.
4) This policy shall not apply where an opacity limit is established as an indication of hazardous air pollutants.

5) This policy shall not apply where an opacity limit is established by a rule, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPS), etc.

Appendix B: 40 CFR Part 60 Subpart VV
Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

§ 60.480 Applicability and designation of affected facility.

(a) (1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.
(2) The group of all equipment (defined in § 60.481) within a process unit is an affected facility.
(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 5, 1981, shall be subject to the requirements of this subpart.
(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
(d) (1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in § 60.486(i).
(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) is exempt from § 60.482.
(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from § 60.482.
(4) Any affected facility that produces beverage alcohol is exempt from § 60.482.
(5) Any affected facility that has no equipment in VOC service is exempt from § 60.482.
(e) *Alternative means of compliance* -- (1) *Option to comply with part 65.* Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§ 60.482 through 60.487 for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of § 60.485(d), (e), and (f), and § 60.486(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

§ 60.481 Definitions.
As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:
(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation: $A = Y \times (B \div 100)$;
(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 1982 minus the year of construction; and
(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable for B

Subpart applicable to facility	Value of to be used in equation
VV	12.5
DDD	12.5
GGG	7.0
KKK	4.5

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.
Connector means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.
Control device means an enclosed combustion device, vapor recovery system, or flare.
Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.
Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.
Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.
Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.
First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.
Fuel gas means gases that are combusted to derive useful work or heat.
Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.
Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007-2900).

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.
In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.
In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in § 60.485(e).
In-situ sampling systems means nonextractive samplers or in-line samplers.
In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa)(0.7 psia) below ambient pressure.
In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of § 60.485(d) specify how to determine that a piece of equipment is not in VOC service.)
Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.
Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.
Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.
Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.
Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in § 60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.
Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.
Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.
Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.
Replacement cost means the capital needed to purchase all the depreciable components in a facility.
Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.
Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.
Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in § 60.489.
Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in § 60.2 Definitions.

§ 60.482-1 Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1 through 60.482-10 or § 60.480(e) for all equipment within 180 days of initial startup.

(b) Compliance with §§ 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485.

(c) (1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§ 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in § 60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§ 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of §§ 60.482-2 to 60.482-10 if it is identified as required in § 60.486(e)(5).

§ 60.482-2 Standards: Pumps in light liquid service.

(a) (1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in § 60.482-1(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b) (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), *Provided* the following requirements are met:

(1) Each dual mechanical seal system is --

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5) (i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6) (i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(iii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) Any pump that is designated, as described in § 60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing,

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485(c), and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of § 60.482-10, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

§ 60.482-3 Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in § 60.482-1(c) and paragraph (h) and (i) of this section.

(b) Each compressor seal system as required in paragraph (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e) (1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

(g) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of § 60.482-10, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in § 60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)-(h) if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in § 60.485(c); and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of § 60.14 or § 60.15 is exempt from § 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

§ 60.482-4 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).

(b) (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482-9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485(c).

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief

device to a control device as described in § 60.482-10 is exempted from the requirements of paragraphs (a) and (b) of this section.

(d) (1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482-9.

§ 60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in § 60.482-1(c). Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of § 60.482-10; or

(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

§ 60.482-6 Standards: Open-ended valves or lines.

(a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482-1(c).

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

§ 60.482-7 Standards: Valves in gas/vapor service and in light liquid service.

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), § 60.483-1, 2, and § 60.482-1(c).

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) (1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d) (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in § 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 60.485(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in § 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either becomes an affected facility through § 60.14 or § 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

§ 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under § 60.482-7(e).

§ 60.482-9 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482-10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

§ 60.482-10 Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.
(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.
(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.
(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.
(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in § 60.485(b); and
(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in § 60.485(b); and
(ii) Conduct annual inspections according to the procedures in § 60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.
(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.
(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and
(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs

(f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§ 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in § 60.486(c).

(4) For each inspection conducted in accordance with § 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

§ 60.483-1 Alternative standards for valves -- allowable percentage of valves leaking.

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in § 60.487(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with § 60.482-7(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in § 60.485(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

§ 60.483-2 Alternative standards for valves -- skip period leak detection and repair.

(a) (1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in § 60.487(d).

(b) (1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in § 60.482-7.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in § 60.482-7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

§ 60.484 Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.
(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.
(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.
(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).
(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e) (1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.
(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.
(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

(f) (1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.
(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

§ 60.485 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the standards in §§ 60.482, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The owner or operator shall determine compliance with the no detectable emission standards in §§ 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference -- see § 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference -- see § 60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

Where:
Vmax = Maximum permitted velocity, m/sec (ft/sec)
HT = Net heating value of the gas being combusted, MJ/scm (Btu/scf).
K1 = 8.706 m/sec (metric units)
= 28.56 ft/sec (English units)
K2 = 0.7084 m 4/(MJ-sec) (metric units)
= 0.087 ft 4/(Btu-sec) (English units)

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:
K = Conversion constant, 1.740 × 10 7 (g-mole)(MJ)/ (ppm-scm-kcal) (metric units)
= 4.674 × 10 8 [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)
Ci = Concentration of sample component "i," ppm
Hi = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

(5) Method 18 and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference -- see § 60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference -- see § 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

§ 60.486 Recordkeeping requirements.

(a) (1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in §§ 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482-7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§ 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in § 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in § 60.482-10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in § 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in §§ 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§ 60.482-2, 60.482-3, 60.482-4, and 60.482-5.

(e) The following information pertaining to all equipment subject to the requirements in §§ 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§ 60.482-2(e), 60.482-3(i) and 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of § 60.482-2(e), § 60.482-3(i), or § 60.482-7(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482-4.

(4) (i) The dates of each compliance test as required in §§ 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(f) The following information pertaining to all valves subject to the requirements of § 60.482-7(g) and (h) and to all pumps subject to the requirements of § 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with § 60.483-2:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in §§ 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in § 60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of § 60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

§ 60.487 Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of § 60.482-7, excluding those valves designated for no detectable emissions under the provisions of § 60.482-7(f).

(3) Number of pumps subject to the requirements of § 60.482-2, excluding those pumps designated for no detectable emissions under the provisions of § 60.482-2(e) and those pumps complying with § 60.482-2(f).

(4) Number of compressors subject to the requirements of § 60.482-3, excluding those compressors designated for no detectable emissions under the provisions of § 60.482-3(i) and those compressors complying with § 60.482-3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in § 60.482(7)(b) or § 60.483-2,

(ii) Number of valves for which leaks were not repaired as required in § 60.482-7(d)(1),

(iii) Number of pumps for which leaks were detected as described in § 60.482-2(b) and (d)(6)(i),

(iv) Number of pumps for which leaks were not repaired as required in § 60.482-2(c)(1) and (d)(6)(ii),

(v) Number of compressors for which leaks were detected as described in § 60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in § 60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§ 60.483-1 or 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with § 60.8 of the General Provisions. The provisions of § 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

§ 60.488 Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable new facility" under § 60.15: pump seals, nuts and bolts, rupture disks, and packings.

(b) Under § 60.15, the "fixed capital cost of new components" includes the fixed capital cost of all depreciable components (except components specified in § 60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the "Applicability and designation of affected facility" section of the appropriate subpart.) For

purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

Appendix C: 40 CFR Part 63 Subpart GGGG

§ 63.2830 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for emissions during vegetable oil production. This subpart limits hazardous air pollutant (HAP) emissions from specified vegetable oil production processes. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards.

§ 63.2831 Where can I find definitions of key words used in this subpart?
You can find definitions of key words used in this subpart in § 63.2872.

§ 63.2832 Am I subject to this subpart?
(a) You are an affected source subject to this subpart if you meet all of the criteria listed in paragraphs (a)(1) and (2) of this section:

(1) You own or operate a vegetable oil production process that is a major source of HAP emissions or is collocated within a plant site with other sources that are individually or collectively a major source of HAP emissions.

(i) A *vegetable oil production process* is defined in § 63.2872. In general, it is the collection of continuous process equipment and activities that produce crude vegetable oil and meal products by removing oil from oilseeds listed in Table 1 to § 63.2840 through direct contact with an organic solvent, such as a hexane isomer blend.

(ii) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

(2) Your vegetable oil production process processes any combination of eight types of oilseeds listed in paragraphs (a)(2)(i) through (viii) of this section:

(i) Corn germ;
(ii) Cottonseed;
(iii) Flax;
(iv) Peanut;
(v) Rapeseed (for example, canola);
(vi) Safflower;
(vii) Soybean; and
(viii) Sunflower.

(b) You are not subject to this subpart if your vegetable oil production process meets any of the criteria listed in paragraphs (b)(1) through (4) of this section:

(1) It uses only mechanical extraction techniques that use no organic solvent to remove oil from a listed oilseed.

(2) It uses only batch solvent extraction and batch desolventizing equipment.

(3) It processes only agricultural products that are not listed oilseeds as defined in § 63.2872.

(4) It functions only as a research and development facility and is not a major source.

(c) As listed in § 63.1(c)(5) of the General Provisions, if your HAP emissions increase such that you become a major source, then you are subject to all of the requirements of this subpart.

§ 63.2833 Is my source categorized as existing or new?

(a) This subpart applies to each existing and new affected source. You must categorize your vegetable oil production process as either an existing or a new source in accordance with the criteria in Table 1 of this section, as follows:

TABLE 1 TO § 63.2833. - CATEGORIZING YOUR SOURCE AS EXISTING OR NEW

If your affected source....	And if....	Then your affected source....
(1) was constructed or began construction before May 26, 2000.	reconstruction has not occurred....	is an existing source.
(2) began reconstruction, as defined in § 63.2, on or after May 26, 2000.	(i) reconstruction was part of a scheduled plan to comply with the existing source requirements of this subpart; and... (ii) reconstruction was completed no later than 3 years after the effective date of this subpart.	remains an existing source.
(3) began a significant modification, as defined in § 63.2872, at any time on an existing source.	the modification does not constitute reconstruction.	remains an existing source.
(4) began a significant modification, as defined in § 63.2872, at any time on a new source.	the modification does not constitute reconstruction	remains a new source.
(5) began construction on or after May 26, 2000.	reconstruction was completed later than 3 years after the effective date of this subpart.	is a new source.
(6) began construction on or after May 26, 2000.	.....	is a new source.

(b) *Reconstruction of a source.* Any affected source is reconstructed if components are replaced so that the criteria in the definition of *reconstruction* in § 63.2 are satisfied. In general, a vegetable oil production process is reconstructed if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost for constructing a new vegetable oil production process, and it is technically and economically feasible for the reconstructed source to meet the relevant new source requirements of this subpart. The effect of reconstruction on the categorization of your existing and new affected source is described in paragraphs (b)(1) and (2) of this section:

(1) After reconstruction of an existing source, the affected source is recategorized as a new source and becomes subject to the new source requirements of this subpart.

(2) After reconstruction of a new source, the affected source remains categorized as a new source and remains subject to the new source requirements of this subpart.

(c) *Significant modification of a source.* A significant modification to an affected source is a term specific to this subpart and is defined in § 63.2872.

(1) In general, a significant modification to your source consists of adding new equipment or the modification of existing equipment within the affected source that significantly affects solvent losses from the affected source. Examples include adding or replacing extractors, desolventizer-toasters (conventional and

specialty), and meal dryer-coolers. All other significant modifications must meet the criteria listed in paragraphs (c)(1)(i) and (ii) of this section:

(i) The fixed capital cost of the modification represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process.

(ii) It does not constitute reconstruction as defined in § 63.2.

(2) A significant modification has no effect on the categorization of your source as existing and new. An existing source remains categorized as an existing source and subject to the existing source requirements of this subpart. A new source remains categorized as a new source and subject to the new source requirements of this subpart.

(d) Changes in the type of oilseed processed by your affected source does not affect the categorization of your
source as new or existing. Recategorizing an affected source from existing to new occurs only when you add or modify process equipment within the source which meets the definition of *reconstruction.*

§ 63.2834 When do I have to comply with the standards in this subpart?
You must comply with this subpart in accordance with one of the schedules in Table 1 of this section, as follows:

TABLE 1 TO § 63.2834. - COMPLIANCE DATES FOR EXISTING AND NEW SOURCES

If your affected source is categorized as....	And if....	Then your compliance date is....
(a) an existing source.....	.....	3 years after the effective date of this subpart.
(b) a new source.....	you startup your affected source before the effective date of this subpart.	the effective date of this subpart.
(c) a new source.....	you startup your affected source on or after the effective date of this subpart.	your startup date.

Standards

§ 63.2840 What emission requirements must I meet?
For each facility meeting the applicability criteria in Sec. 63.2832, you must comply with either the requirements specified in paragraphs (a) through (d), or the requirements in paragraph (e) of this section.

(a) (1) The emission requirements limit the number of gallons of HAP lost per ton of listed oilseeds processed. For each operating month, you must calculate a compliance ratio which compares your actual HAP loss to your allowable HAP loss for the previous 12 operating months as shown in Equation 1 of this section. An operating month, as defined in § 63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire calendar month in which the source operated under an initial startup period subject to § 63.2850(c)(2) or (d)(2) or a malfunction period subject to § 63.2850(e)(2). Equation 1 of this
section follows:

$$\text{Compliance Ratio} = \frac{\text{Actual HAP Loss}}{\text{Allowable HAP Loss}} \qquad \text{(Eq. 1)}$$

(2) Equation 1 of this section can also be expressed as a function of total solvent loss as shown in Equation 2 of this section. Equation 2 of this section follows:

$$\text{Compliance Ratio} = \frac{f \times \text{Actual Solvent Loss}}{0.64 \times \sum_{i=1}^{n} \left((Oilspeed)i \times (SLF)i \right)} \qquad \text{(Eq. 2)}$$

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in § 63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in § 63.2853.

Oilseed = Tons of each oilseed type ''i'' processed during the previous 12 operating months, as shown in § 63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed ''i'' listed in Table 1 of this section, as follows:

TABLE 1 OF § 63.2840. - OILSEED SOLVENT LOSS FACTORS FOR DETERMINING ALLOWABLE HAP LOSS

Type of oilseed process	A source that	Oilseed solvent loss factor (gal/ton) Existing sources	New sources
(i) Corn Germ, Wet Milling	processes corn germ that has been separated from other corn components using a "wet" process of centrifuging a slurry steeped in a dilute sulfurous acid solution.	0.4	0.3
(ii) Corn Germ, Dry Milling	processes corn germ that has been separated from the other corn components using a "dry" process of mechanical chafing and air sifting.	0.7	0.7
(iii) Cottonseed, Large	processes 120,000 tons or more of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period.	0.5	0.4
(iv) Cottonseed, Small	processes less than 120,000 tons of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 month period.	0.7	0.4
(v) Flax	processes flax.	0.6	0.6
(vi) Peanuts	processes peanuts	1.2	0.7
(vii) Rapeseed	processes rapeseed	0.7	0.3
(viii) Safflower	processes safflower	0.7	0.7
(ix) Soybean, Conventional	uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products.	0.2	0.2
(x) Soybean, Speciality	uses a special style desolventizer to produce soybean meal products for human and animal consumption.	1.7	1.5
(xi) Soybean, Combination Plant with Low Speciality Production.	processes soybeans in both speciality and conventional desolventizers and the quality of soybeans processed in speciality desolventizers during normal operating periods is less than 3.3 percent of total soybeans processed during all normal operating periods in a 12 operating month period. The corresponding solvent loss factor is an overall value and applies to the total quantity of soybeans processed...	0.25	0.25
(xii) Sunflower	processes sunflower	0.4	0.3

(b) When your source has processed listed oilseed for 12 operating months, calculate the compliance ratio by the end of each calendar month following an operating month using Equation 2 of this section. When calculating your compliance ratio, consider the conditions and exclusions in paragraphs (b)(1) through (6) of this section:

(1) If your source processes any quantity of listed oilseeds in a calendar month and the source is not operating under an initial startup period or malfunction period subject to § 63.2850, then you must categorize the month as an operating month, as defined in § 63.2872.

(2) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.

(3) If your source shuts down and processes no listed oilseed for an entire calendar month, then you must categorize the month as a nonoperating month, as defined in § 63.2872. Exclude any nonoperating months from the compliance ratio determination.

(4) If your source is subject to an initial startup period as defined in § 63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the initial startup period.

(5) If your source is subject to a malfunction period as defined in § 63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period.

(6) For sources processing cottonseed or specialty soybean, the solvent loss factor you use to determine the compliance ratio may change each operating month depending on the tons of oilseed processed during all normal operating periods in a 12 operating month period.

(c) If the compliance ratio is less than or equal to 1.00, your source was in compliance with the HAP emission
requirements for the previous operating month.

(d) To determine the compliance ratio in Equation 2 of this section, you must select the appropriate oilseed solvent loss factor from Table 1 of this section. First, determine whether your source is new or existing using Table 1 of § 63.2833. Then, under the appropriate existing or new source column, select the oilseed solvent loss factor that corresponds to each type oilseed or process operation for each operating month.

(e) Low-HAP solvent option. For all vegetable oil production processes subject to this subpart, you must exclusively use solvent where the volume fraction of each HAP comprises 1 percent or less by volume of the solvent (low-HAP solvent) in each delivery, and you must meet the requirements in paragraphs (e)(1) through (5) of this section. Your vegetable oil production process is not subject to the requirements in Sec. Sec. 63.2850 through 63.2870 unless specifically referenced in paragraphs (e)(1) through (5) of this section.

(1) You shall determine the HAP content of your solvent in accordance with the specifications in Sec. 63.2854(b)(1).

(2) You shall maintain documentation of the HAP content determination for each delivery of the solvent at the facility at all times.

(3) You must submit an initial notification for existing sources in accordance with Sec. 63.2860(a).

(4) You must submit an initial notification for new and reconstructed sources in accordance with Sec. 63.2860(b).

(5) You must submit an annual compliance certification in accordance with Sec. 63.2861(a). The certification should only include the information required under Sec. 63.2861(a)(1) and (2), and a certification indicating whether the source complied with all of the requirements in paragraph (e) of this section.

(f) You may change compliance options for your source if you submit a notice to the Administrator at least 60 days prior to changing compliance options. If your source changes from the low-HAP solvent

option to the compliance ratio determination option, you must determine the compliance ratio for the most recent 12 operating months beginning with the first month after changing compliance options.

Compliance Requirements

§ 63.2850 How do I comply with the hazardous air pollutant emission standards?

(a) *General requirements.* The requirements in paragraphs (a)(1)(i) through (iv) of this section apply to all affected sources:

(1) Submit the necessary notifications in accordance with § 63.2860, which include:

(i) Initial notifications for existing sources.

(ii) Initial notifications for new and reconstructed sources.

(iii) Initial notifications for significant modifications to existing or new sources.

(iv) Notification of compliance status.

(2) Develop and implement a plan for demonstrating compliance in accordance with § 63.2851.

(3) Develop a written startup, shutdown and malfunction (SSM) plan in accordance with the provisions in § 63.2852.

(4) Maintain all the necessary records you have used to demonstrate compliance with this subpart in
accordance with § 63.2862.

(5) Submit the reports in paragraphs (a)(5)(i) through (iii) of this section:

(i) Annual compliance certifications in accordance with § 63.2861(a).

(ii) Periodic SSM reports in accordance with § 63.2861(c).

(iii) Immediate SSM reports in accordance with § 63.2861(d).

(6) Submit all notifications and reports and maintain all records required by the General Provisions for performance testing if you add a control device that destroys solvent.

(b) *Existing sources under normal operation.* You must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for existing sources under normal operation in Table 2 of this section.

(c) *New source*s. Your new source, including a source that is categorized as new due to reconstruction, must meet the requirements associated with one of two compliance options. Within 15 days of the startup date, you must choose to comply with one of the options listed in paragraph (c)(1) or (2) of this section:

(1) *Normal operation.* Upon startup of your new source, you must meet all of the requirements listed in § 63.2850(a) and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in Table 2 of this section.

(2) *Initial startup perio*d. For up to 6 calendar months after the startup date of your new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for new sources operating under an initial startup period in Table 2 of this section. After a maximum of 6 calendar months, your new source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(d) *Existing or new sources that have been significantly modifie*d. Your existing or new source that has been significantly modified must meet the requirements associated with one of two compliance options. Within 15 days of the modified source startup date, you must choose to comply with one of the options listed in paragraph (d)(1) or (2) of this section:

(1) *Normal operatio*n. Upon startup of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in Table 2 of this section.

(2) *Initial startup period.* For up to 3 calendar months after the startup date of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for a significantly modified existing or new source operating under an initial startup period in Table 2 of this section. After a maximum of 3 calendar months, your new or existing source must meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(e) *Existing or new sources experiencing a malfunctio*n. A *malfunction* is defined in § 63.2. In general, it means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or process equipment to function in a usual manner. If your existing or new source experiences an unscheduled shutdown as a result of a malfunction, continues to operate during a malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from a malfunction, then you must meet the requirements associated with one of two compliance options. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands, maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision. Within 15 days of the beginning date of the malfunction, you must choose to comply with one of the options listed in paragraphs (e)(1) through (2) of this section:

(1) *Normal operation.* Your source must meet all of the requirements listed in paragraph (a) of this section and one of the options listed in paragraphs (e)(1)(i) through (iii) of this section:

(i) Existing source normal operation requirements in paragraph (b) of this section.

(ii) New source normal operation requirements in paragraph (c)(1) of this section.

(iii) Normal operation requirements for sources that have been significantly modified in paragraph (d)(1) of this section.

(2) *Malfunction period.* Throughout the malfunction period, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating during a malfunction period. At the end of the malfunction period, your source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation. Table 1 of this section follows:

TABLE 1 OF § 63.2850. - REQUIREMENTS FOR COMPLIANCE WITH HAP EMISSIONS STANDARDS

Are your required to...	For periods of normal operation?	For initial startup periods subject to § 63.2850(c)(2) or (d)(2)?	For malfunction periods subject to § 63.2850(e)(2)?
(a) Operate and maintain your source in accordance with your SSM plan as described in §63.2852?	No, your source is not subject to the SSM plan, but rather the HAP emission limits of this standard.	Yes, throughout the entire initial startup period.	Yes, throughout the entire malfunction period.
(b) Determine and record the extraction solvent loss in gallons from your source?	Yes, as described in §63.2853	Yes, as described in §63.2862(e)	Yes, as described in §63.2862(e).
(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received?	Yes	Yes	Yes
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in §63.2853..	No	No
(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in § 63.2854 by the end of the following calendar month?	Yes	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month.	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 operating month period as described in §63.2840 by the end of the following calendar month?	Yes	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period.	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in §§ 63.2860(d) and 63.2861(a)	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the initial startup period.	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the malfunction period.
(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which	Yes	No, these requirements are not applicable because your source is not required to determine the compliance	No, these requirements are not applicable because your source is not required to determine

you determined that the compliance ratio exceeds 1.00 as described in §63.2861(b)?		ratio with data recorded for an initial startup period.	the compliance ratio with data recorded for a malfunction period
(i) Submit a Periodic SSM Report as described in §63.2861(c)?	No, a SSM activity is not categorized as normal operation.	Yes	Yes
(j) Submit an Immediate SSM Report as described in §63.2861(d)?	No, a SSM activity is not categorized as normal operation.	Yes, only if your source does not follow the SSM plan	Yes, only if your source does not follow the SSM plan

TABLE 2 OR § 63.2850 - SCHEDULES FOR DEMONSTRATING COMPLIANCE UNDER VARIOUS SOURCE OPERATING MODES.

If your source is ...	and is operating under..	then your recordkeeping schedule....	You must determine your first compliance ratio by the end of the calendar month following...	Base your first compliance ratio on information recorded..
(a) Existing....	Normal operation...	Begins on the compliance date.	The first 12 operating months after the compliance date.	During the first 12 operating months after the compliance date.
(b) New	(1) Normal operation	Begins on the startup date of your new source.	The first 12 operating months after the startup date of the new source.	During the first 12 operating months after the initial startup period, which can last for up to 6 months.
	(2) An initial startup period	Begins on the startup date of your new source.	The first 12 operating months after termination of the initial startup period, which can last for up to 6 months.	During the first 12 operating months after the initial startup period, which can last for up to 6 months.
(c) Existing or new that has been significantly modified.	(1) Normal operation	Resumes on the startup date of the modified source.	The first operating month after the startup date of the modified source.	During the previous 11 operating months prior to the significant modification and the first operating month following the initial startup date of the source.
	(2) An initial startup period.	Resumes on the startup date of the modified source.	The first operating month after termination of the initial startup period, which can last up to 3 months.	During the 11 operating months before the significant modification and the first operating month following the initial startup period.

Sec. 63.2851 What is a plan for demonstrating compliance?
(a) You must develop and implement a written plan for demonstrating compliance that provides the detailed procedures you will follow to monitor and record data necessary for demonstrating compliance with
this subpart. Procedures followed for quantifying solvent loss from the source and amount of oilseed processed vary from source to source because of site-specific factors such as equipment design characteristics and operating conditions. Typical procedures include one or more accurate measurement methods such as weigh scales, volumetric displacement, and material mass balances. Because the industry does not have a uniform set of procedures, you must develop and implement your own site-specific plan for demonstrating compliance before the compliance date for your source. You must also incorporate the plan for demonstrating compliance by reference in the source's title V permit and keep the plan on-site and readily available as long as the source is operational. If you make any changes to the plan for demonstrating compliance, then you must keep all previous versions of the plan and make them readily available for inspection for at least 5 years after each revision. The plan for demonstrating compliance must include the items in paragraphs (a)(1) through (7) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) A detailed description of all methods of measurement your source will use to determine your solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.

(4) When each measurement will be made.

(5) Examples of each calculation you will use to determine your compliance status. Include examples of how you will convert data measured with one parameter to other terms for use in compliance determination.

(6) Example logs of how data will be recorded.

(7) A plan to ensure that the data continue to meet compliance demonstration needs.

(b) The responsible agency of these NESHAP may require you to revise your plan for demonstrating compliance. The responsible agency may require reasonable revisions if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of oilseed processed.

Sec. 63.2852 What is a startup, shutdown, and malfunction plan?
You must develop a written SSM plan in accordance with Sec. 63.6(e)(3) and implement the plan, when applicable. You must complete the SSM plan before the compliance date for your source. You must also keep the SSM Plan on-site and readily available as long as the source is operational. The SSM plan provides detailed procedures for operating and maintaining your source to minimize emissions during a qualifying SSM event for which the source chooses the Sec. 63.2850(e)(2) malfunction period, or the Sec. 63.2850(c)(2) or (d)(2) initial startup period. The SSM plan must specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions. Some or all of the procedures may come from plans you developed for other purposes such as a Standard Operating Procedure manual or an Occupational Safety and Health Administration Process Safety Management plan. To qualify as a SSM plan, other such plans must meet all the applicable requirements of these NESHAP.

Sec. 63.2853 How do I determine the actual solvent loss?
By the end of each calendar month following an operating month, you must determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. If you have determined solvent losses for 12 or more operating months, then you must also determine the 12 operating months rolling sum of

actual solvent loss in gallons by summing the monthly actual solvent loss for the previous 12 operating months. The 12 operating months rolling sum of solvent loss is the ``actual solvent loss," which is used to calculate your compliance ratio as described in Sec. 63.2840.

(a) To determine the actual solvent loss from your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (7) of this section:

(1) The dates that define each operating status period during a calendar month. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If the source maintains the same operating status during an entire calendar month, these dates are the beginning and ending dates of the calendar month. If, prior to the effective date of this rule, your source determines the solvent loss on an accounting month, as defined in Sec. 63.2872, rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If
you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP.

(2) Source operating status. You must categorize the operating status of your source for each recorded time interval in accordance with criteria in Table 1 of this section, as follows:

TABLE 1 OF §63.2853 - CATEGORIZING YOUR SOURCE OPERATING STATUS

If during a recorded time interval...	then your source operating status is.....
(i) Your source processes any amount of listed oilseed and source is not operating under an initial startup operating period or a malfunction period subject to § 63.2850(c)(2), (d)(2), or (e)(2).	A normal operating period.
(ii) Your source processes no agricultural product and your source is not operating under an initial startup period or malfunction period subject to § 63.2850(c)(2), (d)(2), or (e)(2).	A nonoperating period.
(iii) You choose to operate your source under an initial startup period subject to § 63.2850(c)(2) or (d)(2).	An initial startup period.
(iv) You choose to operate your source under a malfunction period subject to § 63.2850(e)(2).	A malfunction period.
(v) Your source process agricultural products not defined as listed oilseed.	An exempt period.

(3) Measuring the beginning and ending solvent inventory. You are required to measure and record the solvent inventory on the beginning and ending dates of each normal operating period that occurs during an
operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in Sec. 63.2851, to determine the extraction solvent inventory, and maintain readily available records of the actual solvent loss inventory, as described in Sec. 63.2862(c)(1). In general, you must measure and record the solvent inventory only when the source is actively processing any type of agricultural product. When the source is not active, some or all of the solvent working capacity is transferred to solvent storage tanks which can artificially inflate the solvent inventory.

(4) Gallons of extraction solvent received. Record the total gallons of extraction solvent received in each shipment. For most processes, the gallons of solvent received represents purchases of delivered solvent added to the solvent storage inventory. However, if your process refines additional vegetable oil from off-site sources, recovers solvent from the off-site oil, and adds it to the on-site solvent inventory, then you must determine the quantity of recovered solvent and include it in the gallons of extraction solvent received.

(5) Solvent inventory adjustments. In some situations, solvent losses determined directly from the measured solvent inventory and quantity of solvent received is not an accurate estimate of the ``actual solvent loss'' for use in determining compliance ratios. In such cases, you may adjust the total solvent loss for each normal operating period as long as you provide a reasonable justification for the adjustment. Situations that may require adjustments of the total solvent loss include, but are not limited to, situations in paragraphs (a)(5)(i) and (ii) of this section:

(i) Solvent destroyed in a control device. You may use a control device to reduce solvent emissions to meet the emission standard. The use of a control device does not alter the emission limit for the source. If you use a control device that reduces solvent emissions through destruction of the solvent instead of recovery, then determine the gallons of solvent that enter the control device and are destroyed there during each normal operating period. All solvent destroyed in a control device during a normal operating period can be subtracted from the total solvent loss. Examples of destructive emission control devices include catalytic incinerators, boilers, or flares. Identify and describe, in your plan for demonstrating compliance, each type of reasonable and sound measurement method that you use to quantify the gallons of solvent entering and exiting the control device and to determine the destruction efficiency of the control device. You may use design evaluations to document the gallons of solvent destroyed or removed by the control device instead of performance testing under Sec. 63.7. The design evaluations must be based on the procedures and options described in Sec. 63.985(b)(1)(i)(A) through (C) or Sec. 63.11, as appropriate. All data, assumptions, and procedures used in such evaluations must be documented and available for inspection. If you use performance testing to determine solvent flow rate to the control device or destruction efficiency of the device, follow the procedures as outlined in Sec. 63.997(e)(1) and (2). Instead of periodic performance testing to demonstrate continued good operation of the control device, you may develop a monitoring plan, following the procedures outlined in Sec. 63.988(c) and using operational parametric measurement devices such as fan parameters, percent measurements of lower explosive limits, and combustion temperature.

(ii) Changes in solvent working capacity. In records you keep on-site, document any process modifications resulting in changes to the solvent working capacity in your vegetable oil production process. Solvent working capacity is defined in Sec. 63.2872. In general, solvent working capacity is the volume of solvent normally retained in solvent recovery equipment such as the extractor, desolventizer-toaster, solvent storage, working tanks, mineral oil absorber, condensers, and oil/solvent distillation system. If the change occurs during a normal operating period, you must determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory.

(b) Use Equation 1 of this section to determine the actual solvent loss occurring from your affected source for all normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\text{Monthly Actual Solvent (gal)} = \sum_{i=1}^{n} \left(SOLV_B - SOLV_E + SOLV_R \pm SOLV_A\right)_i \quad \text{(Eq. 1)}$$

Where:

$SOLV_B$ = Gallons of solvent in the inventory at the beginning of normal operating period ``i'' as determined in paragraph (a)(3) of this section.

$SOLV_E$ = Gallons of solvent in the inventory at the end of normal operating period ``i'' as determined in paragraph (a)(3) of this section.

$SOLV_R$ = Gallons of solvent received between the beginning and ending inventory dates of normal operating period ``i'' as determined in paragraph (a)(4) of this section.

$SOLV_A$ = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period ``i'' as determined in paragraph (a)(5) of this section.

n = Number of normal operating periods in a calendar month.

(c) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. You determine your actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. You must record the actual solvent loss by the end of each calendar month following an operating month. Use the actual solvent loss in Equation 2 of Sec. 63.2840 to determine the compliance ratio. Actual solvent loss does not include losses that occur during operating status periods listed in paragraphs (c)(1) through (4) of this section. If any one of these four operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination.

(1) Nonoperating periods as described in paragraph (a)(2)(ii) of this section.
(2) Initial startup periods as described in Sec. 63.2850(c)(2) or (d)(2).
(3) Malfunction periods as described in Sec. 63.2850(e)(2).
(4) Exempt operation periods as described in paragraph (a)(2)(v) of this section.

Sec. 63.2854 How do I determine the weighted average volume fraction of HAP in the actual solvent loss?

(a) This section describes the information and procedures you must use to determine the weighted average volume fraction of HAP in extraction solvent received for use in your vegetable oil production process. By the end of each calendar month following an operating month, determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If you have determined the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months, then also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average in Equation 2 of Sec. 63.2840 to determine the compliance ratio.

(b) To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, you must comply with paragraphs (b)(1) through (3) of this section:

(1) Record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of appendix A of this part. You may use EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content. Other reasonable means of determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. Determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in Equation 1 of this section. Record the result by the end of each calendar month following an operating month. Equation 1 of this section follows:

$$\text{Monthly Weighted Average HAP Content of Extraction Solvent} = \frac{\sum_{i=1}^{n} \text{Received}_i \times \text{Content}_i}{\text{Total Received}} \qquad \text{(Eq. 1)}$$

Where:

Received_i = Gallons of extraction solvent received in delivery ``i."
Content_i = The volume fraction of HAP in extraction solvent delivery ``i."
Total Received = Total gallons of extraction solvent received since the end of the previous operating month.
n = Number of extraction solvent deliveries since the end of the previous operating month.

(3) Determine the volume fraction of HAP in your extraction solvent as a 12 operating months weighted average. When your source has processed oilseed for 12 operating months, sum the products of the
monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed by Equation 2 of
this section. Record the result by the end of each calendar month following an operating month and use it in Equation 2 of Sec. 63.2840 to determine the compliance ratio. Equation 2 of this section follows:
(Eq. 2)

$$\text{12 Month Weighted Average of HAP Content in Solvent Received (volume Fraction)} = \frac{\sum_{i=1}^{12} \text{Received}_i \times \text{Content}_i}{\text{Total Received}}$$

Where:

Received_i = Gallons of extraction solvent received in operating month ``i" as determined in accordance with
Sec. 63.2853(a)(4).
Content_i = Average volume fraction of HAP in extraction solvent received in operating month ``i" as determined in accordance with paragraph (b)(1) of this section.
Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

Sec. 63.2855 How do I determine the quantity of oilseed processed?
All oilseed measurements must be determined on an as received basis, as defined in Sec. 63.2872. The as received basis refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing. By the end of each calendar month following an operating month, you must determine the tons as received of each listed oilseed processed for the operating month. The total oilseed processed for an operating month includes the total of each oilseed processed during all normal operating periods that occur within the operating month. If you have determined the tons of oilseed processed for 12 or more operating months, then you must also determine the 12 operating months rolling sum of each type oilseed processed by summing the tons of each type of oilseed processed for the previous 12 operating months. The 12 operating months rolling sum of each type of oilseed processed is used to calculate the compliance ratio as described in Sec. 63.2840.

(a) To determine the tons as received of each type of oilseed processed at your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (5) of this section:

(1) The dates that define each operating status period. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If, prior to the effective date of this rule, your source determines the oilseed inventory on an accounting month rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP. The dates on each oilseed inventory log must be consistent with the dates recorded for the solvent inventory.

(2) Source operating status. You must categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the oilseed inventory for each type of oilseed must be consistent with the operating status recorded on the solvent inventory logs as described in Sec. 63.2853(a)(2).

(3) Measuring the beginning and ending inventory for each oilseed. You are required to measure and record the oilseed inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in Sec. 63.2851, to determine the oilseed inventory on an as received basis and maintain readily available records of the oilseed inventory as described by Sec. 63.2862(c)(3).

(4) Tons of each oilseed received. Record the type of oilseed and tons of each shipment of oilseed received and added to your on-site storage.

(5) Oilseed inventory adjustments. In some situations, determining the quantity of oilseed processed directly from the measured oilseed inventory and quantity of oilseed received is not an accurate estimate of the tons of oilseed processed for use in determining compliance ratios. For example, spoiled and molded oilseed removed from storage but not processed by your source will result in an overestimate of the quantity of oilseed processed. In such cases, you must adjust the oilseed inventory and provide a justification for the adjustment. Situations that may require oilseed inventory adjustments include, but are not limited to, the situations listed in paragraphs (a)(5)(i) through (v) of this section:

(i) Oilseed that mold or otherwise become unsuitable for processing.

(ii) Oilseed you sell before it enters the processing operation.

(iii) Oilseed destroyed by an event such as a process malfunction, fire, or natural disaster.

(iv) Oilseed processed through operations prior to solvent extraction such as screening, dehulling, cracking, drying, and conditioning; but that are not routed to the solvent extractor for further processing.

(v) Periodic physical measurements of inventory. For example, some sources periodically empty oilseed storage silos to physically measure the current oilseed inventory. This periodic measurement procedure typically results in a small inventory correction. The correction factor, usually less than 1 percent, may be used to make an adjustment to the source's oilseed inventory that was estimated previously with indirect measurement techniques. To make this adjustment, your plan for demonstrating compliance must provide for such an adjustment.

(b) Use Equation 1 of this section to determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\text{Monthly Quantity of Each Oilseed Processed (tons)} = \sum \left(\text{SEEDB} - \text{SEEDE} + \text{SEEDR} \pm \text{SEEDA}\right)$$

Where:

SEEDB = Tons of oilseed in the inventory at the beginning of normal operating period ``i'' as determined in accordance with paragraph (a)(3) of this section.
SEEDE = Tons of oilseed in the inventory at the end of normal operating period ``i'' as determined in accordance with paragraph (a)(3) of this section.
SEEDR = Tons of oilseed received during normal operating period ``i'' as determined in accordance with paragraph (a)(4) of this section.
SEEDA = Tons of oilseed added or removed from the oilseed inventory during normal operating period ``i'' as determined in accordance with paragraph (a)(5) of this section.
n = Number of normal operating periods in the calendar month during which this type oilseed was processed.

(c) The quantity of each oilseed processed is the total tons of each type of listed oilseed processed during normal operating periods in the previous 12 operating months. You determine the tons of each oilseed processed by summing the monthly quantity of each oilseed processed for the previous 12 operating months. You must record the 12 operating months quantity of each type of oilseed processed by the end of each calendar month following an operating month. Use the 12 operating months quantity of each type of oilseed processed to determine the compliance ratio as described in Sec. 63.2840. The quantity of oilseed processed does not include oilseed processed during the operating status periods in paragraphs (c)(1) through (4) of this
section:

(1) Nonoperating periods as described in Sec. 63.2853 (a)(2)(ii).
(2) Initial startup periods as described in Sec. 63.2850(c)(2) or (d)(2).
(3) Malfunction periods as described in Sec. 63.2850(e)(2).
(4) Exempt operation periods as described in Sec. 63.2853 (a)(2)(v).
(5) If any one of these four operating status periods span an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination.

Notifications, Reports, and Records

Sec. 63.2860 What notifications must I submit and when?
You must submit the one-time notifications listed in paragraphs (a) through (d) of this section to the responsible agency:

(a) Initial notification for existing sources. For an existing source, submit an initial notification to the agency responsible for these NESHAP no later than 120 days after the effective date of this subpart. In the notification, include the items in paragraphs (a)(1) through (5) of this section:

(1) The name and address of the owner or operator.
(2) The physical address of the vegetable oil production process.
(3) Identification of the relevant standard, such as the vegetable oil production NESHAP, and compliance date.
(4) A brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.
(5) A statement designating the source as a major source of HAP or a demonstration that the source meets the definition of an area source. An area source is a source that is not a major source and is not
collocated within a plant site with other sources that are individually or collectively a major source.

(b) Initial notifications for new and reconstructed sources. New or reconstructed sources must submit a series of notifications before, during, and after source construction per the schedule listed in Sec. 63.9. The information requirements for the notifications are the same as those listed in the General Provisions with the exceptions listed in paragraphs (b)(1) and (2) of this section:

(1) The application for approval of construction does not require the specific HAP emission data required in Sec. 63.5(d)(1)(ii)(H) and (iii), (d)(2) and (d)(3)(ii). The application for approval of construction would include, instead, a brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(2) The notification of actual startup date must also include whether you have elected to operate under an initial startup period subject to Sec. 63.2850(c)(2) and provide an estimate and justification for the anticipated duration of the initial startup period.

(c) Significant modification notifications. Any existing or new source that plans to undergo a significant modification as defined in Sec. 63.2872 must submit two reports as described in paragraphs (c)(1) and (2) of this section:

(1) Initial notification. You must submit an initial notification to the agency responsible for these NESHAP 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification. The initial notification must include the items in paragraphs (c)(1)(i) and (ii) of this section:

(i) The expected startup date of the modified source.

(ii) A description of the significant modification including a list of the equipment that will be replaced or modified. If the significant modification involves changes other than adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers, then you must also include the fixed capital cost of the new components, expressed as a percentage of the fixed capital cost to
build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.

(2) Notification of actual startup. You must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the items in paragraphs (c)(2)(i) through (iv) of this section:

(i) The initial startup date of the modified source.

(ii) An indication whether you have elected to operate under an initial startup period subject to Sec. 63.2850(d)(2).

(iii) The anticipated duration of any initial startup period.

(iv) A justification for the anticipated duration of any initial startup period.

(d) Notification of compliance status. As an existing, new, or reconstructed source, you must submit a notification of compliance status report to the responsible agency no later than 60 days after determining your initial 12 operating months compliance ratio. If you are an existing source, you generally must submit this notification no later than 50 calendar months after the effective date of these NESHAP (36 calendar months for compliance, 12 operating months to record data, and 2 calendar months to complete the report). If you are a new or reconstructed source, the notification of compliance status is generally due no later than 20 calendar months after initial startup (6 calendar months for the initial startup period, 12 operating months to record data, and 2 calendar months to complete the report). The notification of compliance status must contain the items in paragraphs (d)(1) through (6) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the previous 12 operating months.

(4) Each HAP identified under Sec. 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the items in paragraphs (d)(6)(i) through (iii) of this section:

(i) The plan for demonstrating compliance (as described in Sec. 63.2851) and SSM plan (as described in Sec. 63.2852) are complete and available on-site for inspection.

(ii) You are following the procedures described in the plan for demonstrating compliance.

(iii) The compliance ratio is less than or equal to 1.00.

Sec. 63.2861 What reports must I submit and when?

After the initial notifications, you must submit the reports in paragraphs (a) through (d) of this section to the agency responsible for these NESHAP at the appropriate time intervals:

(a) Annual compliance certifications. The first annual compliance certification is due 12 calendar months after you submit the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. Include the information in paragraphs (a)(1) through (6) of this section in the annual certification:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 calendar months period covered by the report.

(4) Each HAP identified under Sec. 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, you must include a certification of the items in paragraphs (a)(6)(i) through (ii) of this section:

(i) You are following the procedures described in the plan for demonstrating compliance.

(ii) The compliance ratio is less than or equal to 1.00.

(b) Deviation notification report. Submit a deviation report for each compliance determination you make in which the compliance ratio exceeds 1.00 as determined under Sec. 63.2840(c). Submit the deviation report by the end of the month following the calendar month in which you determined the deviation. The deviation notification report must include the items in paragraphs (b)(1) through (4) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 operating months period for which you determined the deviation.

(4) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the agency responsible for these NESHAP does not object as provided in
Sec. 63.10(e)(3)(iii).

(c) Periodic startup, shutdown, and malfunction report. If you choose to operate your source under an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2) or a malfunction period subject to Sec. 63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include the items in paragraphs (c)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.

(2) A description of events occurring during the time period, the time and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.

(3) An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.

(d) Immediate SSM reports. If you handle a SSM during an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2) or a malfunction period subject to Sec. 63.2850(e)(2) differently from procedures in the SSM plan and the relevant emission requirements in Sec. 63.2840, then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include the items in paragraphs (d)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.

(2) A description and date of the SSM event, its duration, and reason it qualifies as a SSM.

(3) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.

Sec. 63.2862 What records must I keep?

(a) You must satisfy the recordkeeping requirements of this section by the compliance date for your source specified in Table 1 of Sec. 63.2834.

(b) Prepare a plan for demonstrating compliance (as described in Sec. 63.2851) and a SSM plan (as described in Sec. 63.2852). In these two plans, describe the procedures you will follow in obtaining and recording data, and determining compliance under normal operations or a SSM subject to the Sec. 63.2850(c)(2) or (d)(2) initial startup period or the Sec. 63.2850(e)(2) malfunction period. Complete both plans before the compliance date for your source and keep them on-site and readily available as long as the source is operational.

(c) If your source processes any listed oilseed, record the items in paragraphs (c)(1) through (5) of this section:

(1) For the solvent inventory, record the information in paragraphs (c)(1)(i) through (vii) of this section in accordance with your plan for demonstrating compliance:

(i) Dates that define each operating status period during a calendar month.

(ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval.

(iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.

(iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month.

(v) All extraction solvent inventory adjustments, additions or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment.

(vi) The total solvent loss for each calendar month, regardless of the source operating status.

(vii) The actual solvent loss in gallons for each operating month.

(2) For the weighted average volume fraction of HAP in the extraction solvent, you must record the items in paragraphs (c)(2)(i) through (iii) of this section:

(i) The gallons of extraction solvent received in each delivery.

(ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent.

(iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with Sec. 63.2854(b)(2).

(3) For each type of listed oilseed processed, record the items in paragraphs (c)(3)(i) through (vi) of this section, in accordance with your plan for demonstrating compliance:

(i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.

(ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of
listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status.

(iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.

(iv) The tons of each type of listed oilseed received at the affected source each normal operating period.

(v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment.

(vi) The tons of each type of listed oilseed processed during each operating month.

(d) After your source has processed listed oilseed for 12 operating months, and you are not operating during an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period as described in Sec. 63.2850(e)(2), record the items in paragraphs (d)(1) through (5) of this section by the end of the calendar month following each operating month:

(1) The 12 operating months rolling sum of the actual solvent loss in gallons as described in Sec. 63.2853(c).

(2) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months as described in Sec. 63.2854(b)(3).

(3) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons as described in Sec. 63.2855(c).

(4) A determination of the compliance ratio. Using the values from Secs. 63.2853, 63.2854, 63.2855, and Table 1 of Sec. 63.2840, calculate the compliance ratio using Equation 2 of Sec. 63.2840.

(5) A statement of whether the source is in compliance with all of the requirements of this subpart. This includes a determination of whether you have met all of the applicable requirements in Sec. 63.2850.

(e) For each SSM event subject to an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period as described in Sec. 63.2850(e)(2), record the items in paragraphs (e)(1) through (3) of this section by the end of the calendar month following each month in which the initial startup period or malfunction period occurred:

(1) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup or malfunction.

(2) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation.

(3) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup or malfunction period.

Sec. 63.2863 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for review in accordance with Sec. 63.10(b)(1).

(b) As specified in Sec. 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with Sec. 3.10(b)(1). You can keep the records off-site for the remaining 3 years.

Other Requirements and Information

Sec. 63.2870 What parts of the General Provisions apply to me?

Table 1 of this section shows which parts of the General Provisions in Sec. Sec. 63.1 through 63.15 apply to you. Table 1 of Sec. 63.2870 follows:

Sec. 63.2871 Who implements and enforces this subpart?

(a) This subpart can be implemented by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, as well as the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows:

(1) Approval of alternative nonopacity emissions standards under Sec. 63.6(g).

(2) Approval of alternative opacity standards under Sec. 63.6(h)(9).

(3) Approval of major alternatives to test methods under Sec. 63.7(e)(2)(ii) and (f) and as defined in Sec. 63.90.

(4) Approval of major alternatives to monitoring under Sec. 63.8(f) and as defined in Sec. 63.90.

(5) Approval of major alternatives to recordkeeping and reporting under Sec. 63.10(f) and as defined in Sec. 63.90.

Sec. 63.2872 What definitions apply to this subpart?

Terms used in this subpart are defined in the sources listed:

(a) The Clean Air Act, section 112(a).

(b) In 40 CFR 63.2, the NESHAP General Provisions.

(c) In this section as follows:

Accounting month means a time interval defined by a business firm during which corporate economic and financial factors are determined on a consistent and regular basis. An accounting month will consist of approximately 4 to 5 calendar weeks and each accounting month will be of approximate equal duration. An accounting month may not correspond exactly to a calendar month, but 12 accounting months will correspond exactly to a calendar year.

Actual solvent loss means the gallons of solvent lost from a source during 12 operating months as determined in accordance with Sec. 63.2853.

Agricultural product means any commercially grown plant or plant product.

Allowable HAP loss means the gallons of HAP that would have been lost from a source if the source was operating at the solvent loss factor for each listed oilseed type. The allowable HAP loss in gallons is determined by multiplying the tons of each oilseed type processed during the previous 12 operating months, as determined in accordance with Sec. 63.2855, by the corresponding oilseed solvent loss factor (gal/ton) listed in Table 1 of Sec. 63.2840, and by the dimensionless constant 0.64, and summing the result for all oilseed types processed.

Area source means any source that does not meet the major source definition.

As received is the basis upon which all oilseed measurements must be determined and refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing.

Batch operation means any process that operates in a manner where the addition of raw material and withdrawal of product do not occur simultaneously. Typically, raw material is added to a process, operational steps occur, and a product is removed from the process. More raw material is then added to the process and the cycle repeats.

Calendar month means 1 month as specified in a calendar.

Compliance date means the date on which monthly compliance recordkeeping begins. For existing sources, recordkeeping typically begins 3 years after the effective date of the subpart. For new and reconstructed sources, recordkeeping typically begins upon initial startup, except as noted in Sec. 63.2834.

Compliance ratio means a ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors in Table 1 of Sec. 63.2840, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the Sec. 63.2850(c)(2) or (d)(2) initial startup period or the Sec. 63.2850(e)(2) malfunction period applies, are excluded from this calculation. Equation 2 of Sec. 63.2840 is used to calculate this value. If the value is less than or equal to 1.00, the source is in compliance. If the value is greater than 1.00, the source is deviating from compliance.

Continuous operation means any process that adds raw material and withdraws product simultaneously. Mass, temperature, concentration and other properties typically approach steady-state conditions.

Conventional desolventizer means a desolventizer toaster that operates with indirect and direct-contact steam to remove solvent from the extracted meal. Oilseeds processed in a conventional desolventizer produce crude vegetable oil and crude meal products, such as animal feed.

Corn germ dry milling means a source that processes corn germ that has been separated from the other corn components using a ``dry'' process of mechanical chafing and air sifting.

Corn germ wet milling means a source that processes corn germ that has been separated from other corn components using a ``wet'' process of centrifuging a slurry steeped in a dilute sulfurous acid solution.

Exempt period means a period of time during which a source processes agricultural products not defined as listed oilseed.

Extraction solvent means an organic chemical medium used to remove oil from an oilseed. Typically, the extraction solvent is a commercial grade of hexane isomers which have an approximate HAP content of 64 percent by volume.

Hazardous air pollutant (HAP) means any substance or mixture of substances listed as a hazardous air pollutant under section 112(b) of the Clean Air Act, as of April 12, 2001.

Initial startup date means the first calendar day that a new, reconstructed or significantly modified source processes any listed oilseed.

Initial startup period means a period of time from the initial startup date of a new, reconstructed or significantly modified source, for which you choose to operate the source under an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2). During an initial startup period, a source is in compliance with the standards by following the operating and maintenance procedures listed for minimizing HAP emissions in the source's SSM plan rather than being subject to a HAP emission limit. The initial startup period following initial startup of a new or reconstructed source may not exceed 6 calendar months. The initial startup period following a significant modification may not exceed 3 calendar months. Solvent and oilseed inventory information recorded during the initial startup period is excluded from use in any compliance ratio determinations.

Large cottonseed plant means a vegetable oil production process that processes 120,000 tons or more of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

Malfunction period means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period subject to Sec. 63.2850(e)(2). This period may include the duration of an unscheduled process shutdown, continued operation during a malfunction, or the subsequent process startup after a shutdown resulting from a malfunction. During a malfunction period, a source complies with the standards by following the operating and maintenance procedures described for minimizing HAP emissions in the source's SSM plan rather than being subject to a HAP emission limit. Therefore, solvent and oilseed inventory information recorded during a malfunction period is excluded from use in any compliance ratio determinations.

Mechanical extraction means removing vegetable oil from oilseeds using only mechanical devices such as presses or screws that physically force the oil from the oilseed. Mechanical extraction techniques use no organic solvents to remove oil from an oilseed.

Nonoperating period means any period of time in which a source processes no agricultural product. This operating status does not apply during any period in which the source operates under an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period, as described in Sec. 63.2850(e)(2).

Normal operating period means any period of time in which a source processes a listed oilseed that is not categorized as an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period, as described in Sec. 63.2850(e)(2). At the beginning and ending dates of a normal operating period, solvent and oilseed inventory information is recorded and included in the compliance ratio determination.

Oilseed or listed oilseed means the following agricultural products: corn germ, cottonseed, flax, peanut, rapeseed (for example, canola), safflower, soybean, and sunflower.

Oilseed solvent loss factor means a ratio expressed as gallons of solvent loss per ton of oilseed processed. The solvent loss factors are presented in Table 1 of Sec. 63.2840 and are used to determine the allowable HAP loss.

Operating month means any calendar or accounting month in which a source processes any quantity of listed oilseed, excluding any entire calendar or accounting month in which the source operated under an

initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period as described in Sec. 63.2850(e)(2). An operating month may include time intervals characterized by several types of operating status. However, an operating month must have at least one normal operating period.

Significant modification means the addition of new equipment or the modification of existing equipment that:

(1) Significantly affects solvent losses from your vegetable oil production process;

(2) The fixed capital cost of the new components represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process;

(3) The fixed capital cost of the new equipment does not constitute reconstruction as defined in Sec. 63.2; and

(4) Examples of significant modifications include replacement of or major changes to solvent recovery equipment such as extractors, desolventizer-toasters/dryer-coolers, flash desolventizers, and distillation equipment associated with the mineral oil system, and equipment affecting desolventizing efficiency and steady-state operation of your vegetable oil production process such as flaking mills, oilseed heating and conditioning equipment, and cracking mills.

Small cottonseed plant means a vegetable oil production process that processes less than 120,000 tons of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

Solvent extraction means removing vegetable oil from listed oilseed using an organic solvent in a direct-contact system.

Solvent working capacity means the volume of extraction solvent normally retained in solvent recovery equipment. Examples include components such as the solvent extractor, desolventizer-toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

Specialty desolventizer means a desolventizer that removes excess solvent from soybean meal using vacuum conditions, energy from superheated solvent vapors, or reduced operating conditions (e.g., temperature) as compared to the typical operation of a conventional desolventizer. Soybeans processed in a specialty desolventizer result in high-protein vegetable meal products for human and animal consumption, such as calf milk replacement products and meat extender products.

Vegetable oil production process means the equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, and cracking), solvent extractors, desolventizer-toasters, meal dryers, meal coolers, meal conveyor systems, oil distillation units, solvent evaporators and condensers, solvent recovery system (also referred to as a mineral oil absorption system), vessels storing solvent-laden materials, and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).

Appendix D: Predictive Emissions Monitoring Plan

EXAMPLE PERFORMANCE SPECIFICATIONS

Example Specifications and Test Procedures for Predictive Emission Monitoring Systems

1. APPLICABILITY AND PRINCIPLE

1.1 Applicability.

1.1.1 This specification is to be used for evaluating the acceptability of predictive emission monitoring systems (PEMS's) at the time of or soon after installation and whenever specified in the regulations. The PEMS may include, for certain stationary sources, a diluent (O_2 or CO_2) PEMS.

1.1.2 This specification is not designed to evaluate the installed PEMS performance over an extended period of time nor does it identify specific validation techniques and other auxiliary procedures to assess the PEMS performance. The source owner or operator, however, is responsible to validate, maintain, and operate the PEMS properly. To evaluate the PEMS performance, the Administrator may require, under Section 114 of the Act, the operator to conduct PEMS performance evaluations at other times besides the initial test.

1.1.3 The owner or operator may conduct this performance specification test in a restricted range of operation in accordance. For example, if the permitted range of operation of the emissions unit were between 50% and 100% of the possible range, and the owner or operator wishes to restrict the emissions unit to operation between 80% and 100% of the possible range for some reason (e.g. production schedules), the initial performance specification test may be performed for that restricted range. If, at a later date, the owner or operator elects to operate outside of the restricted range, then the owner or operator must conduct a relative accuracy (RA) test within 60 days of operation in that range to demonstrate that the PEMS can provide acceptable data when operating in the new range. The RA test at the new range is to be done by performing a single 9 point RA test within the new range using the appropriate test methods.

1.2 Principle. Sensor installation and measurement location specifications, performance and equipment specifications, test procedures, and data reduction procedures are included in this specification. Reference method tests and PEMS drift tests are conducted to determine conformance of the PEMS with the specification.

2. DEFINITIONS

2.1 Centroidal Area. A concentric area that is geometrically similar to the stack or duct cross section and is no greater than l percent of the stack or duct cross-sectional area.

2.2 PEMS. The total equipment required for the determination of a gas concentration or emission rate. The system consists of the following major subsystems:

2.2.1 Sensors and Sensor Interface. That portion of the PEMS used for the following: Process data acquisition; process data transportation between the sensors and the emission model(s); and sensor validation.

2.2.2 Emission Model(s). That portion of the PEMS that utilizes process data or reconciled process data and generates an output proportional to the gas concentration or emission rate. The emission model may generate emissions data in terms of the applicable emission limitation without the use of a diluent emission model.

2.2.3 Diluent Emission Model (if applicable). That portion of the PEMS that utilizes process data or reconciled process data and generates an output proportional to the diluent gas concentration (e.g., CO_2 or O_2).

2.2.4 Data Recorder. That portion of the PEMS that provides a permanent record of the analyzer output. The data recorder may
include automatic data reduction capabilities. The data recorder may include electronic data records, paper records, or a combination of electronic data and paper records

2.2.5 Sensor Validation System. That portion of the PEMS that analyzes the process data to ensure the accuracy of the gas concentration determined by the emission model(s) including any diluent emissions model(s), and to provide reconciled process data in the event of a failed sensor.

2.3 PEMS Drift (PD). The difference in the PEMS output readings from the reference value(s) due to the effect of sensor drift and the effect of utilizing reconciled process data for when a sensor or any combination of sensors has failed.

2,4 Reference value. Based on reference method testing, a baseline PEMS measurement during which time each sensor has been determined to be functioning properly.

2.5 Relative Accuracy (RA). The absolute mean difference between the gas concentration or emission rate determined by the PEMS and the value determined by the reference methods (RM's) plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the RM tests or the applicable emission limit.

2.6 Representative Results. As defined by the RM test procedure outlined in this specification.

2.7 Failed Sensor or Sensor Failure. A sensor which, by comparison to the other sensors, has been determined to have failed or drifted such that the difference between PEMS output readings and reference values are beyond the allowable PEMS drift criteria.

3. INSTALLATION AND MEASUREMENT LOCATION SPECIFICATIONS

3.1 Sensor Installation. All sensors shall be installed at an accessible location in order to be able to perform, as necessary, repairs and replacements. Accessible locations does not require the installation of permanently installed platforms or ladders. Sensors may be at locations which require emission unit shutdown in order to repair or replace a failed sensor. After repair or replacement of a sensor, the process data from the sensor shall be, if necessary, corrected to provide process data which is representative of the process data obtained from the previously installed sensor.

3.2 Reference Method Measurement Location and Traverse Points.

3.2.1 Select, as appropriate, an accessible Reference Method (RM) measurement point at least two equivalent diameter downstream from the nearest control device, the point of pollutant generation, or other point at which a change in the pollutant concentration or emission rate may occur, and at least a half equivalent diameter upstream from the effluent exhaust or control device. When pollutant concentration changes are due solely to diluent leakage (e.g., air heater leakages) and pollutants and diluents are simultaneously measured at the same location, a half diameter may be used in lieu of two equivalent diameters.

Then select a traverse point or points that assure acquisition of representative samples over the stack or duct cross section. The following procedure is used to establish a traverse point which yields representative results: Establish the number and location of each traverse point for the sampling location in conformance with Test Method 1; Measure emissions in accordance with the applicable RM test method(s) at each traverse point for a period of two minutes plus the twice the test method’s system response time; Determine the average of the emissions; and Locate the traverse point with emissions nearest the average of the emissions as the sampling location for the RM tests. Results from previous studies may be used.

In lieu of determining a single traverse point to provide representative emissions, the following procedure may be used to locate the traverse points for conducting the RM tests: Establish a "measurement line" that passes through the centroidal area and in the direction of any expected stratification; Locate a minimum of three traverse points at 16.7, 50.0, and 83.3 percent of the measurement line or, if the measurement line is longer than 2.4 meters, the tester may choose to locate the three traverse points on the line at 0.4, 1.2, and 2.0 meters from the stack or duct.

The tester may select other traverse points, provided that they can be shown to the satisfaction of the Administrator to provide a representative sample over the stack or duct cross section. Conduct all necessary RM tests within 3 cm (but no less than 3 cm from the stack or duct wall) of the traverse point or points.

4. PERFORMANCE AND EQUIPMENT SPECIFICATIONS

4.1 Data Recorder Scale. The PEMS data recorder response range must include a low-level (zero to 20% of the applicable emission standard) and a high-level value. The high-level value is chosen by the source owner or operator and is defined as follows:

4.1.1 For a PEMS intended to measure an uncontrolled emission (e.g., NO_x measurements at the stack of a natural gas fired boiler), the high-level value must be between 1.25 and 2 times the average potential emission level, unless otherwise specified in an applicable regulations. For a PEMS installed to measure controlled emissions, the high-level value must be between 1.5 and 2.0 times the pollutant concentration corresponding to the emission standard level. For a PEMS installed to measures emissions that are in compliance with an applicable regulation, the high-level value must be between 1.1 and 1.5 times the pollutant concentration corresponding to the emission standard level. If approved by the Permitting Authority. a lower high-level value may be used.

4.1.2 The data recorder output must be established so that the high-level value is read between 90 and 100 percent of the data recorder full scale. This scale requirement is not applicable to digital data recorders.

4.1.3 The PEMS design must allow the automatic or manual determination of failed sensors. At a minimum, an hourly determination must be performed.

4.1.4 In the event of a failed sensor(s), the PEMS design may include the automatic or manual reconciliation of the process data provided that the PEMS emissions have been demonstrated to not have drifted by more than 20 percent of the applicable emission standard.

4.2 PEMS Drift. The PEMS must not drift or deviate from the reference value by more than 20 percent of the applicable emission standard based upon a perturbation analysis of the effect of sensor drift and the effect of utilizing reconciled process data for when a sensor or any combination of sensors has failed. If the PEMS includes emission and diluent models, the PEMS drift (PD) must be determined separately for each.

4.3 PEMS Relative Accuracy. The RA of the PEMS must be no greater than 20 percent of the mean value of the RM test data in terms of the units of the emission standard or 10 percent of the applicable emission standard, whichever is greater. For emissions below 1/4 of the applicable emission standard, use 20 percent of the standard.

5. PERFORMANCE SPECIFICATION TEST PROCEDURES

5.1 Pretest Preparation. Install the PEMS, prepare the RM test site according to the specifications in Section 3, and prepare the PEMS for operation according to the manufacturer's written instructions.

5.2 PEMS DRIFT TEST PROCEDURE.

5.2.1 Prior to the initial RATA, a demonstration of the ability of the PEMS to identify failed sensors and, if applicable, to reconcile failed sensors while maintaining the PEMS drift to less than 20% of the applicable standard shall be performed. This demonstration shall be conducted at a high-level reference value or a range of high-level reference values. The high-level reference value(s) must be between 75% to 100% of the pollutant concentration which corresponds to the applicable emission standard. The perturbation analysis shall be conducted as follows:

5.2.2 General Records. Record: the high-level reference value(s); the expected range of sensor values; the baseline sensor values at the reference values; the percent change in sensor value from the baseline sensor value established as the point at which the sensor is considered to have failed; and the sensor value which results in the sensor to be considered a failed sensor.

5.2.3 Analysis of Failed Sensor Values. Artificially perturb each sensor to the sensor value immediately prior to the sensor value which results in the sensor to be considered a failed sensor, and then record the sensor value and PEMS value. Calculate and record the PEMS drift for each sensor. The PEMS drift for each perturbed sensor value must be less than 20% of the applicable emission standard.

5.2.4 Analysis of Sensor Reconciliation. Artificially perturb each sensor to the sensor value which results in the sensor to be considered a failed sensor, and then record the calculated sensor value and PEMS value. Calculate and record the PEMS drift for each sensor. The PEMS drift for each reconciled sensor value must be less than 20% of the applicable emission standard. Repeat the procedure for the high-level reference value.

5.2.5 Analysis of Combinations of Failed Sensors. Artificially perturb combinations of sensors to the sensor values which result in the sensors to be considered failed sensors, and then record the reconciled sensor values and PEMS value. Calculate the PEMS drift for each combination of failed sensors analyzed. Determine each combination of failed sensors which result in a PEMS drift of less than 20% of the applicable emission standard. The PEMS drift for each combination of reconciled sensor values must be less than 20% of the applicable emission standard in order to be acceptable.

5.3 RELATIVE ACCURACY TEST PROCEDURE

5.3.1 Sampling Strategy for RM Tests. Conduct the RM tests in such a way that they will yield results representative of the emissions from the source and can be correlated to the PEMS data. In order to correlate the PEMS and RM data properly, mark the beginning and end of each RM test period of each run (including the exact time of the day) on the PEMS permanent record of output. Use the following strategies for the RM tests:

5.3.2 Instrumental Test Methods. For all types of emission units, instrumental test methods, e.g., Method 3A, Method 6C, and Method 7E, are recommended.

5.3.3 Non-instrumental Test Methods. For emission units with consistent emissions, integrated or grab non-instrumental test methods, e.g., Method 6 or Method 7, respectively, may be used. A test run for grab samples must be made up of at least three separate measurements. Note that for emission units with varying emissions, if non-instrumental test methods are to be used, then integrated non-instrumental test methods must be used since grab sampling techniques may not provide representative emissions data.

5.3.4 Note. At times, PEMS RA tests are conducted during new source performance standards performance tests. In these cases, RM results obtained during PEMS RA tests may be used to determine compliance as long as the source and test conditions are consistent with the applicable regulations.

5.3.5 Correlation of RM and PEMS Data. Correlate the PEMS and the RM test data as to the time and duration by first determining from the PEMS final output (the one used for reporting) the integrated average pollutant concentration or emission rate for each pollutant RM test period. Consider system response time, if important, and confirm that the pair of results are on a consistent moisture, temperature, and diluent concentration basis. Then, compare each integrated PEMS value against the corresponding average RM value. Use the following guidelines to make these comparisons.

5.3.6 If the RM has an instrumental or an integrated non-instrumental sampling technique, make a direct comparison of the RM results and PEMS integrated average value.

5.3.7 If the RM has a grab sampling technique, first average the results from all grab samples taken during the test run, and then compare this average value against the integrated value obtained from the PEMS during the run.

5.3.8 Number of RM Tests. Conduct a minimum of nine sets of all necessary RM tests. Three sets must be conducted at low-level gas concentrations or emission rates, three at normal-level, and three at high-level. Note: The tester may choose to perform more than nine sets of RM tests. If this option is chosen, the tester may, at his discretion, reject a maximum of three sets of the test results so long as the total number of test results used to determine the RA is greater than or equal to nine, but all data including the rejected data must be reported.

5.3.9 Reference Methods. Unless otherwise specified in an applicable regulations, the test methods contained in 40 CFR Part 60, Appendix A are required. The instrumental test methods, e.g., Methods 3A, 6C, and 7E, are recommended. The tester should ensure that the test method chosen will be able to provide accurate and precise emissions data.

5.3.10 Calculations. Summarize the results on a data sheet.
Calculate the mean of the RM values. Calculate the arithmetic differences between the RM and the PEMS output sets. Then calculate the mean of the difference, standard deviation, confidence coefficient, and PEMS RA, using Equations P-1, P-2, P-3, and P-4, respectively.

6. EQUATIONS

6.1 Arithmetic Mean. Calculate the arithmetic mean of the difference, d, of a data set as follows:

$$\bar{d} = \frac{1}{n}\sum_{i=1}^{n} d_i$$

(Eq. P-1)

Where: n = Number of data points.

d_i = Difference between RM test result and PEMS output

When the mean of the differences of pairs of data is calculated, be sure to correct the data for moisture, if applicable.

6.2 Standard Deviation. Calculate the standard deviation, S_d, as follows:

$$s_d = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left(\sum_{i=1}^{n} d_i\right)^2}{n}}{n-1}\right]^{1/2}$$

(Eq. P-2)

6.3 Confidence Coefficient. Calculate the 2.5 percent error confidence coefficient (one-tailed), CC, as follows:

$$cc = t_{0.975}\frac{s_d}{\sqrt{n}}$$

(Eq. P-3)

Where: $t_{0.975}$ = t-value (see Table P-1).

TABLE P-1. t-VALUES

n^a	$t_{0.975}$	n^a	$t_{0.975}$	n^a	$t_{0.975}$
2	20.706	7	2.447	20	2.201
3	4.303	8	2.365	13	2.179
4	3.182	9	2.306	14	2.160
5	2.776	10	2.262	15	2.145
6	2.571	11	2.228	16	2.131

[a] The values in this table are already corrected for n-1 degrees of freedom. Use n equal to the number of individual values.

6.4 Relative Accuracy. Calculate the RA of a set of data as follows:

$$RA = \frac{|\bar{d}| + |CC|}{\overline{RM}} \times 100$$

(Eq. P-4)

Where: $|\bar{d}|$ = Absolute value of the mean differences (from Eq. P-1).

|CC| = Absolute value of the confidence coefficien (from Eq. P-3).

$\overline{RM}$ = Average RM value or applicable standard.

7. REPORTING

At a minimum (check with the appropriate regional office, or State, or local agency for additional requirements, if any) summarize in tabular form the results of the PD tests and the RA tests or alternative RA procedure as appropriate. Include all data sheets, calculations, and charts (records of PEMS responses), necessary to substantiate that the performance of the PEMS met the performance specifications.

Appendix E: 40 CFR 63 Subpart DDDDD
Industrial/Commercial/Institutional Boilers and Process Heaters

(48) ASTM D5865–03a, Standard Test Method for Gross Calorific Value of Coal and Coke,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(49) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(50) ASTM E711–87 (Reapproved 1996), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(51) ASTM E776–87 (Reapproved 1996), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(52) ASTM E871–82 (Reapproved 1998), Standard Method of Moisture Analysis of Particulate Wood Fuels,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(53) ASTM E885–88 (Reapproved 1996), Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy,[1] IBR approved for Table 6 to Subpart DDDDD of this part 63.

* * * * *

(i) * * *

(3) ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],'' IBR approved for §§ 63.865(b), 63.3166(a), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), 63.9323(a)(3), and Table 5 to Subpart DDDDD of this part.

* * * * *

■ 3. Part 63 is amended by adding subpart DDDDD to read as follows:

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

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Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP as defined in § 63.2 or § 63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in § 63.7491.

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or

process heater located at a major source as defined in § 63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (*e.g.*, hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled ''National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards,'' (EPA–453/R–01–005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in § 63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under § 63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to § 63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days

before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

§ 63.7506 Do any boilers or process heaters have limited requirements?

(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.

(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in § 63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in § 63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in § 63.9(b) (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in § 63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

§ 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to this subpart.

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to § 63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, establishing operating limits according to § 63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to § 63.7525.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide

according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to § 63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to § 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to § 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in § 63.7550.

§ 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in § 63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

§ 63.7521 What fuel analyses and procedures must I use?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i)

through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

§ 63.7522 Can I use emission averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hm}) \div \sum_{i=1}^{n}\text{Hm} \qquad \text{(Eq. 1)}$$

Where:

AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sm} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sm} \times \text{Cf} \qquad \text{(Eq. 2)}$$

Where:

AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in § 63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hb}) \div \sum_{i=1}^{n}\text{Hb} \qquad \text{(Eq. 3)}$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sa} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sa} \times \text{Cf} \qquad \text{(Eq. 4)}$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calender month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in § 63.7495.

(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to § 63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control

activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.*, weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to § 63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to § 63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input (C_{input}) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in

your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C_i).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

$$Cl_{input} = \sum_{i=1}^{n}\left[(C_i)(Q_i)\right] \qquad \text{(Eq. 5)}$$

Where:

Cl_{input} = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Q_i) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (M_i).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

$$TSM_{input} = \sum_{i=1}^{n}\left[(M_i)(Q_i)\right] \qquad \text{(Eq. 6)}$$

Where:

TSM_{input} = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

M_i = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

$$Mercury_{input} = \sum_{i=1}^{n}\left[(HG_i)(Q_i)\right] \qquad \text{(Eq. 7)}$$

Where:

$Mercury_{input}$ = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HG_i = Arithmetic average concentration of mercury in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in § 63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in § 63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

$$P_{90} = \text{mean} + (SD \times t) \qquad \text{(Eq. 8)}$$

Where:

P_{90} = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n}\left[\left(C_{i90}\right)\left(Q_i\right)\left(1.028\right)\right] \qquad \text{(Eq. 9)}$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

C_{i90} = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^{n}\left[\left(M_{i90}\right)\left(Q_i\right)\right] \qquad \text{(Eq. 10)}$$

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

M_{i90} = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n}\left[\left(HG_{i90}\right)\left(Q_i\right)\right] \qquad \text{(Eq. 11)}$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

HG_{i90} = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

Continuous Compliance Requirements

§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of § 63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of § 63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of § 63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of § 63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 7 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to § 63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to § 63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in § 63.7505(e).

(d) Consistent with §§ 63.6(e)and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether

deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

§ 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in § 63.7522(f) and (g);

(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by § 63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by § 63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in § 63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered

no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of § 63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of § 63.7530, the maximum TSM input operating limit using Equation 6 of § 63.7530, or the maximum mercury input operating limit using Equation 7 of § 63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.*, what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems,

process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should

include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

§ 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major change to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2 (the General Provisions), and in this section as follows:

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Biomass fuel means unadulterated wood as defined in this subpart, wood residue, and wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.*, almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388–991 $^{\epsilon 1}$, ''Standard Specification for Classification of Coals by Rank ^{1}'' (incorporated by reference, see § 63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Deviation. (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the

standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396–02a, ''Standard Specifications for Fuel Oils [1]'' (incorporated by reference, see § 63.14(b)).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

Electric utility steam generating unit means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Electrostatic precipitator means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Firetube boiler means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Large gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Large liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Large solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Limited use gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Limited use liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Limited use solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Liquid fossil fuel means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

Minimum pressure drop means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber flow rate means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent flow rate means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, ''Standard Specification for Liquid Petroleum Gases'' (incorporated by reference, see § 63.14(b)).

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396–02a, ''Standard Specifications for Fuel Oils [1]'' (incorporated by reference, see § 63.14(b)).

Responsible official means responsible official as defined in 40 CFR 70.2.

Small gaseous fuel subcategory includes any firetube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Small liquid fuel subcategory includes any firetube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Small solid fuel subcategory includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Solid fuel includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

Total selected metals means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Unadulterated wood means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

Waste heat boiler means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

Watertube boiler means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart DDDDD of Part 63

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
1. New or reconstructed large solid fuel	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS—Continued

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
2. New or reconstructed limited use solid fuel ...	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average).
3. New or reconstructed small solid fuel	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
4. New reconstructed large liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0005 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
5. New or reconstructed limited use liquid fuel ..	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis liquid corrected to 3 percent oxygen (3-run average).
6. New or reconstructed small liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
7. New reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
8. New or reconstructed limited use gaseous fuel.	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).
9. Existing large solid fuel	a. Particulate Matter (or Total Selected Metals).	0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.09 lb per MMBtu of heat input.
	c. Mercury	0.000009 lb per MMBtu of heat input.
10. Existing limited use solid fuel	Particulate Matter (or Total Selected Metals) ..	0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS—Continued

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
4. Any other control type	This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

TABLE 3 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH MERCURY EMISSION LIMITS AND BOILERS AND PROCESS HEATERS THAT CHOOSE TO COMPLY WITH THE ALTERNATIVE TOTAL SELECTED METALS EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
2. Fabric filter control	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
4. Dry scrubber or carbon injection control	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to § 63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

TABLE 4 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH HYDROGEN CHLORIDE EMISSION LIMITS

As stated in § 63.7500, you must comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to § 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Particulate Matter	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the particulate matter emission concentration.	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
2. Total selected metals	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the total selected metals emission concentration.	Method 29 in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the hydrogen chloride emission concentration.	Method 26 or 26A in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 62.14(i)).

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS—Continued

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the mercury emission concentration.	Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784–02 (IBR, see § 63.14(b)).
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
5. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	c. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)) when the fuel is natural gas.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234–00 ∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure mercury concentration in fuel sample.	ASTM D3684–01 (for coal)(IBR, see § 63.14(b)) or SW–846–7471A (for solid samples) or SW–846 7470A (for liquid samples).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
2. Total selected metals	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234–00 ∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E 711–87 (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871 (IBR, see § 63.14(b)) or equivalent.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS—Continued

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	f. Measure total selected metals concentration in fuel sample.	SW–846–6010B or ASTM D3683–94 (2000) (for coal) (IBR, see § 63.14(b)) or ASTM E885–88 (1996) (for biomass)(IBR, see § 63.14(b)).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
3. Hydrogen chloride	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure chlorine concentration in fuel sample.	SW–846–9250 or ASTM E776–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. Particulate matter, mercury, or total selected metals.	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control).	i. Establish a site-specific minimum voltage and secondary current or total power input according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; (b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS—Continued

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
2. Hydrogen Chloride ...	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test.	(a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Dry scrubber operating parameters.	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(c).	(1) Data from the sorbent injection rate monitors and hydrogen chloride performance test.	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to §§ 63.7525(b) and 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(c).
4. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to § 63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§ 63.7530(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input.	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE—Continued

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
7. Fuel Pollutant Content	c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§ 63.7530(c). a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.7530(c) or (d) as applicable; and b. Keeping monthly records of fuel use according to § 63.7540(a).

TABLE 9 TO SUBPART DDDDD OF PART 63.—REPORTING REQUIREMENTS

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (11); and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(e); and d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)	Semiannually according to the requirements in § 63.7550(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b. The information in § 63.10(d)(5)(ii)	ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards.	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Applicability	GP apply unless compliance extension; and GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f).	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; and for 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard.	Yes.
§ 63.6(h)(1)	Compliance with Opacity/VE Standards	Comply with opacity/VE emission limitations at all times except during SSM.	Yes.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/Visible Emission (VE) Standards.	If standard does not state test method, use Method 9 for opacity and Method 22 for VE.	No.
§ 63.6(h)(2)(ii)	[Reserved].		
§ 63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart.	Yes.
§ 63.6(h)(3)	[Reserved].		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Notify Administrator of anticipated date of observation.	No.
§ 63.6(h)(5)(i),(iii)–(v)	Conducting Opacity/VE Observations	Dates and Schedule for conducting opacity/VE observations.	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times.	Must have at least 3 hours of observation with thirty, 6-minute averages.	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE observations.	Keep records available and allow Administrator to inspect.	No.
§ 63.6(h)(7)(i)	Report continuous opacity monitoring system Monitoring Data from Performance Test.	Submit continuous opacity monitoring system data with other performance test data.	Yes.
§ 63.6(h)(7)(ii)	Using continuous opacity monitoring system instead of Method 9.	Can submit continuous opacity monitoring system data instead of Method 9 results even if subpart requires Method 9, but must notify Administrator before performance test.	No.
§ 63.6(h)(7)(iii)	Averaging time for continuous opacity monitoring system during performance test.	To determine compliance, must reduce continuous opacity monitoring system data to 6-minute averages.	Yes.
§ 63.6(h)(7)(iv)	Continuous opacity monitoring system requirements.	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to §§ 63.8(e), continuous opacity monitoring systems are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d).	Yes.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards.	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence-proper maintenance, meeting PS 1, and data have not been altered.	Yes.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Administrator will use all continuous opacity monitoring system, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance.	Yes.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard.	Yes.
§ 63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule.	Yes.
§ 63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations.	Yes.
§ 63.7(a)(2)	Performance Test Dates	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance	Yes.
§ 63.7(a)(2)(ii–viii)	[Reserved].		
§ 63.7(a)(2)(ix)	Performance Test Dates	1. New source that commenced construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance; and.	Yes.
		2. If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard.	No.
§ 63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	No.
§ 63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	1. Performance tests must be conducted under representative conditions; and	No.
		2. Cannot conduct performance tests during SSM; and	Yes.
		3. Not a deviation to exceed standard during SSM; and	Yes.
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.	Yes.
§ 63.7(e)(4)	Interaction with other sections of the Act	Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test.	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard.	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in § 63.11 apply.	No.
§63.8(b)(1)(i)–(ii)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(1)(iii)	Monitoring	Flares not subject to this section unless otherwise specified in relevant standard.	No.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems; and must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; and if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Maintain and operate CMS according to § 63.6(e)(1).	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Must keep necessary parts available for routine repairs of CMSs.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	Must develop and implement an SSMP for CMSs.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements; and must verify operational status before or at performance test.	Yes.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.	CMSs must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts.	No.
§ 63.8(c)(4)(i)	Continuous Monitoring System (CMS) Requirements.	Continuous opacity monitoring system must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	Yes.
§ 63.8(c)(4)(ii)	Continuous Monitoring System (CMS) Requirements.	Continuous emissions monitoring system must have a minimum of one cycle of operation for each successive 15-minute period.	No.
§ 63.8(c)(5)	Continuous Opacity Monitoring system (COMS) Requirements.	Must do daily zero and high level calibrations.	Yes.
§ 63.8(c)(6)	Continuous Monitoring System (CMS) Requirements.	Must do daily zero and high level calibrations.	No.
§ 63.8(c)(7)–(8)	Continuous Monitoring Systems Requirements.	Out-of-control periods, including reporting	Yes.
§ 63.8(d)	Continuous Monitoring Systems Quality Control.	Requirements for continuous monitoring systems quality control, including calibration, etc.; and must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions.	Yes.
§ 63.8(e)	Continuous monitoring systems Performance Evaluation.	Notification, performance evaluation test plan, reports.	Yes.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system.	No.
§ 63.8(g)(1)–(4)	Data Reduction	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points; and continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points.	Yes.
§ 63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system.	No.
§ 63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each.	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications When Using Continuous Monitoring Systems.	Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy.	Yes.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change.	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(v)	Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vi) and (x–xi)	Continuous monitoring systems Records	Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance.	Yes.
§ 63.10(b)(2)(vii)–(ix)	Records	Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test.	No.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)	Records	Applicability Determinations	Yes.
§ 63.10(c)(1),(5)–(8),(10)–(15)	Records	Additional Records for continuous monitoring systems.	Yes.
§ 63.10(c)(7)–(8)	Records	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems.	No.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	Yes.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.10(e)(1)(2)	Additional continuous monitoring systems Reports.	Must report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation.	Yes.
§ 63.10(e)(3)	Reports	Excess Emission Reports	No.
§ 63.10(e)(3)(i–iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations.	No.
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Must submit report containing all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(3)(vi–viii)	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); Requires all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(4)	Reporting continuous opacity monitoring system data.	Must submit continuous opacity monitoring system data with performance test data.	Yes.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§ 63.11	Flares	Requirements for flares	No.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent.	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential Information	Yes.

Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

1. Purpose/Introduction

This appendix provides the methodology and criteria for demonstrating that your affected source is eligible for the compliance alternative for the HCl emission limit and/or the total selected metals (TSM) emission limit. This appendix specifies emissions testing methods that you must use to determine HCl, chlorine, and manganese emissions from the affected units and what parts of the affected source facility must be included in the eligibility demonstration. You must demonstrate that your affected source is eligible for the health-based compliance alternatives using either a look-up table analysis (based on the look-up tables included in this appendix) or a site-specific compliance demonstration performed according to the criteria specified in this appendix. This appendix also specifies how and when you file any eligibility demonstrations for your affected source and how to show that your affected source remains eligible for the health-based compliance alternatives in the future.

2. Who Is Eligible To Demonstrate That They Qualify for the Health-Based Compliance Alternatives?

Each new, reconstructed, or existing affected source may demonstrate that they are eligible for the health-based compliance alternatives. Section 63.7490 of subpart DDDDD defines the affected source and explains which affected sources are new, existing, or reconstructed.

3. What Parts of My Facility Have To Be Included in the Health-Based Eligibility Demonstration?

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must include every emission point subject to subpart DDDDD that emits either HCl or Cl_2 in the eligibility demonstration.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must include every emission point subject to subpart DDDDD that emits manganese in the eligibility demonstration.

4. How Do I Determine HAP Emissions From My Affected Source?

(a) You must conduct HAP emissions tests or fuel analysis for every emission point covered under subpart DDDDD within the affected source facility according to the requirements in paragraphs (b) through (f) of this section and the methods specified in Table 1 of this appendix.

(1) If you are attempting to determine your eligibility for the compliance alternative for HCl, you must test the subpart DDDDD units at your facility for both HCl and Cl_2. When conducting fuel analysis, you must assume any chlorine detected will be emitted as Cl_2.

(2) If you are attempting to determine your eligibility for the compliance alternative for TSM, you must test the subpart DDDDD units at your facility for manganese.

(b) *Periods when emissions tests must be conducted.*

(1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) *Number of test runs.* You must conduct three separate test runs for each test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(d) *Sampling locations.* Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(e) *Collection of monitoring data for HAP control devices.* During the emissions test, you must collect operating parameter monitoring system data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements in Tables 3 or 4, as appropriate, of subpart DDDDD using data from the monitoring system and the procedures specified in § 63.7530 of subpart DDDDD.

(f) *Nondetect data.* You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the condition in paragraph (f)(1) of this section is met for the manganese test method. Otherwise, nondetect data for individual HAP must be treated as one-half of the method detection limit.

(1) For manganese measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS).

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to Equation 1 of this appendix.

$$\text{Max Hourly Emissions} = \sum_{i=1}^{n} (\text{Er} \times \text{Hm}) \qquad \text{(Eq. 1)}$$

Where:

Max Hourly Emissions = Maximum hourly emissions for hydrogen chloride, chlorine, or manganese, in units of pounds per hour.

Er = Emission rate (the 3-run average as determined according to Table 1 of this appendix or the pollutant concentration in the fuel samples analyzed according to § 63.7521) for hydrogen chloride, chlorine, or manganese, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of appropriate emission point, in units of million Btu per hour.

5. What Are the Criteria for Determining If My Facility Is Eligible for the Health-Based Compliance Alternatives?

(a) Determine the HAP emissions from each appropriate emission point within the affected source facility using the procedures specified in section 4 of this appendix.

(b) Demonstrate that your facility is eligible for either of the health-based compliance alternatives using either the methods described in section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific compliance demonstration).

(c) Your facility is eligible for the health-based compliance alternative for HCl if one of the following two statements is true:

(1) The calculated HCl-equivalent emission rate is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HI for HCl and $C1_2$ at a location where people live is less than or equal to 1.0;

(d) Your facility is eligible for the health-based compliance alternative for TSM if one of the following two statements is true:

(1) The manganese emission rate for all your subpart DDDDD sources is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HQ for manganese at a location where people live is less than or equal to 1.0.

6. How Do I Conduct a Look-Up Table Analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for the HCl emission limit or the compliance alternative for TSM emission limit.

(a) *HCl health-based compliance alternative.* (1) To calculate the total toxicity-weighted HCl-equivalent emission rate for your facility, first calculate the total affected source emission rate of HCl by summing the maximum hourly HCl emission rates from all your subpart DDDDD sources. Then, similarly, calculate the total affected source emission rate for Cl_2. Finally, calculate the toxicity-weighted emission rate (expressed in HCl equivalents) according to Equation 2 of this appendix.

$$\text{ER}_{tw} = \sum \left(\text{ER}_i \times \left(\text{RfC}_{HCl} / \text{RfC}_i \right) \right) \qquad \text{(Eq. 2)}$$

Where:

ER_{tw} is the HCl-equivalent emission rate, lb/hr.

ER_i is the emission rate of HAP i in lbs/hr

RfC_i is the reference concentration of HAP i

RfC_{HCl} is the reference concentration of HCl (RfCs for HCl and Cl_2 can be found at *http://www.epa.gov/ttn/atw/toxsource/summary.html).*

(2) The calculated HCl-equivalent emission rate will then be compared to the appropriate allowable emission rate in Table 2 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit HCl and/or Cl_2. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (**Note:** If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility is eligible to comply with the health-based alternative HCl emission limit if your toxicity-weighted HCl equivalent emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value in Table 2 of this appendix.

(b) *TSM Compliance Alternative.* To calculate the total manganese emission rate for your affected source, sum the maximum hourly manganese emission rates for all your subpart DDDDD sources. The calculated manganese emission rate will then be compared to the allowable emission rate in the Table 3 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit manganese. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (**Note:** If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility may exclude manganese when demonstrating compliance with the TSM emission limit if your manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in Table 3 of this appendix.

7. How Do I Conduct a Site-Specific Compliance Demonstration?

If you fail to demonstrate that your facility is able to comply with one or both of the alternative health-based emission standards using the look-up table approach, you may choose to perform a site-specific compliance demonstration for your facility. You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration. An example of one approach for performing a site-specific compliance demonstration for air toxics can be found in the EPA's ''Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document'', which may be obtained through the EPA's Air Toxics Web site at *http://www.epa.gov/ttn/fera/risk_atoxic.html.*

(a) Your facility is eligible for the HCl alternative compliance option if your site-specific compliance demonstration shows that the maximum HI for HCl and Cl_2 from your subpart DDDDD sources is less than or equal to 1.0.

(b) Your facility is eligible for the TSM alternative compliance option if your site-specific compliance demonstration shows that the maximum HQ for manganese from your subpart DDDDD sources is less than or equal to 1.0.

(c) At a minimum, your site-specific compliance demonstration must:

(1) Estimate long-term inhalation exposures through the estimation of annual

or multi-year average ambient concentrations;

(2) Estimate the inhalation exposure for the individual most exposed to the facility's emissions;

(3) Use site-specific, quality-assured data wherever possible;

(4) Use health-protective default assumptions wherever site-specific data are not available, and;

(5) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(d) Your site-specific compliance demonstration need not:

(1) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(2) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

8. What Must My Health-Based Eligibility Demonstration Contain?

(a) Your health-based eligibility demonstration must contain, at a minimum, the information specified in paragraphs (a)(1) through (6) of this section.

(1) Identification of each appropriate emission point at the affected source facility, including the maximum rated capacity of each appropriate emission point.

(2) Stack parameters for each appropriate emission point including, but not limited to, the parameters listed in paragraphs (a)(2)(i) through (iv) below:

(i) Emission release type.

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity.

(iii) Plot plan showing all emission points, nearby residences, and fenceline.

(iv) Identification of any control devices used to reduce emissions from each appropriate emission point.

(3) Emission test reports for each pollutant and appropriate emission point which has been tested using the test methods specified in Table 1 of this appendix, including a description of the process parameters identified as being worst case. Fuel analyses for each fuel and emission point which has been conducted including collection and analytical methods used.

(4) Identification of the RfC values used in your look-up table analysis or site-specific compliance demonstration.

(5) Calculations used to determine the HCl-equivalent or manganese emission rates according to sections 6(a) or (b) of this appendix.

(6) Identification of the controlling process factors (including, but not limited to, fuel type, heat input rate, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) that will become Federally enforceable permit conditions used to show that your facility remains eligible for the health-based compliance alternatives.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your facility is eligible for either health-based compliance alternative, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (b)(1) through (3) of this section.

(1) Calculations used to determine the average stack height of the subpart DDDDD emission points that emit either manganese or HCl and Cl_2.

(2) Identification of the subpart DDDDD emission point, that emits either manganese or HCl and Cl_2, with the minimum distance to the property boundary of the facility.

(3) Comparison of the values in the look-up tables (Tables 2 and 3 of this appendix) to your maximum HCl-equivalent or manganese emission rates.

(c) If you use a site-specific compliance demonstration as described in section 7 of this appendix to demonstrate that your facility is eligible, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (c)(1) through (7) of this section:

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (5) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of any exposure assessment and risk characterization calculations.

(6) Comparison of the HQ HI to the limit of 1.0.

9. When Do I Have to Complete and Submit My Health-Based Eligibility Demonstration?

(a) If you have an existing affected source, you must complete and submit your eligibility demonstration to your permitting authority, along with a signed certification that the demonstration is an accurate depiction of your facility, no later than the date one year prior to the compliance date of subpart DDDDD. A separate copy of the eligibility demonstration must be submitted to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404–01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address *REAG@epa.gov*.

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you must comply with the requirements of subpart DDDDD until your eligibility demonstration is completed and submitted to your permitting authority.

(c) If you have a new or reconstructed affected source that starts up after the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP after the effective date for subpart DDDDD, then you must follow the schedule in paragraphs (c)(1) and (2) of this section.

(1) You must complete and submit a preliminary eligibility demonstration based on the information (*e.g.*, equipment types, estimated emission rates, etc.) used to obtain your title V permit. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative HCl standard and subject to the compliance requirements in this appendix or, in the case of manganese, your compliance demonstration with the TSM emission limit is based on 7 metals (excluding manganese).

(2) You must conduct the emission tests or fuel analysis specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date. To be eligible, you must meet the criteria in section 11 of this appendix within 18 months following initial startup of your affected source.

10. When Do I Become Eligible for the Health-Based Compliance Alternatives?

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited to, fuel type, fuel mix (annual average), type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) must be submitted for incorporation as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission limits, operating limits, and work practice standards in Subpart DDDDD.

11. How Do I Ensure That My Facility Remains Eligible for the Health-Based Compliance Alternatives?

(a) You must update your eligibility demonstration and resubmit it each time you have a process change, such that any of the parameters that defined your affected source changes in a way that could result in increased HAP emissions (including, but not limited to, fuel type, fuel mix (annual average), change in type of control device, changes in process parameters documented as worst-case conditions during the emissions testing used for your approved eligibility demonstration).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section, then you must perform emission testing or fuel analysis according to section 4 of this appendix for the subpart DDDDD emission points that may have increased HAP emissions beyond the levels reflected in your previously approved eligibility demonstration due to the process

change. You must submit your revised eligibility demonstration to the permitting authority prior to revising your permit to incorporate the process change. If your updated eligibility demonstration indicates that your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in Subpart DDDDD prior to making the process change and revising your permit.

12. What Records Must I Keep?

You must keep records of the information used in developing the eligibility demonstration for your affected source, including all of the information specified in section 8 of this appendix.

13. Definitions

The definitions in § 63.7575 of subpart DDDDD apply to this appendix. Additional definitions applicable for this appendix are as follows:

Hazard Index (HI) means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the RfC.

Look-up table analysis means a risk screening analysis based on comparing the HAP or HAP-equivalent emission rate from the affected source to the appropriate maximum allowable HAP or HAP-equivalent emission rates specified in Tables 2 and 3 of this appendix.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

Worst-case operating conditions means operation of an affected unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used. For example, worst-case conditions could include operation of an affected unit firing solid fuel likely to produce the most HAP.

TABLE 1 TO APPENDIX B OF SUBPART DDDDD—EMISSION TEST METHODS

For . . .	You must . . .	Using . . .
(1) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Select sampling ports' location and the number of traverse points.	Method 1 of 40 CFR part 60, appendix A.
(2) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Determine velocity and volumetric flow rate; ...	Method 2, 2F, or 2G in appendix A to 40 CFR part 60.
(3) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Conduct gas molecular weight analysis	Method 3A or 3B in appendix A to 40 CFR part 60.
(4) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Measure moisture content of the stack gas	Method 4 in appendix A to 40 CFR part 60.
(5) Each subpart DDDDD emission point for which you choose to use the HCl compliance alternative.	Measure the hydrogen chloride and chlorine emission concentrations.	Method 26 or 26A in appendix A to 40 CFR part 60.
(6) Each subpart DDDDD emission point for which you choose to use the TSM compliance alternative.	Measure the manganese emission concentration.	Method 29 in appendix A to 40 CFR part 60.
(7) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

TABLE 2 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE TOXICITY-WEIGHTED EMISSION RATE EXPRESSED IN HCl EQUIVALENTS (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	114.9	114.9	114.9	114.9	114.9	114.9	144.3	287.3	373.0	373.0	373.0	373.0
10	188.5	188.5	188.5	188.5	188.5	188.5	195.3	328.0	432.5	432.5	432.5	432.5
20	386.1	386.1	386.1	386.1	386.1	386.1	386.1	425.4	580.0	602.7	602.7	602.7
30	396.1	396.1	396.1	396.1	396.1	396.1	396.1	436.3	596.2	690.6	807.8	816.5
40	408.1	408.1	408.1	408.1	408.1	408.1	408.1	448.2	613.3	715.5	832.2	966.0
50	421.4	421.4	421.4	421.4	421.4	421.4	421.4	460.6	631.0	746.3	858.2	1002.8
60	435.5	435.5	435.5	435.5	435.5	435.5	435.5	473.4	649.0	778.6	885.0	1043.4
70	450.2	450.2	450.2	450.2	450.2	450.2	450.2	486.6	667.4	813.8	912.4	1087.4
80	465.5	465.5	465.5	465.5	465.5	465.5	465.5	500.0	685.9	849.8	940.9	1134.8
100	497.5	497.5	497.5	497.5	497.5	497.5	497.5	527.4	723.6	917.1	1001.2	1241.3
200	677.3	677.3	677.3	677.3	677.3	677.3	677.3	682.3	919.8	1167.1	1390.4	1924.6

TABLE 3 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE MANGANESE EMISSION RATE (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	0.29	0.29	0.29	0.29	0.29	0.29	0.36	0.72	0.93	0.93	0.93	0.94
10	0.47	0.47	0.47	0.47	0.47	0.47	0.49	0.82	1.08	1.08	1.08	1.08
20	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.06	1.45	1.51	1.51	1.51
30	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.09	1.49	1.72	2.02	2.04
40	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.12	1.53	1.79	2.08	2.42
50	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.15	1.58	1.87	2.15	2.51
60	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.18	1.62	1.95	2.21	2.61
70	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.22	1.67	2.03	2.28	2.72
80	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.25	1.71	2.12	2.35	2.84
100	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.32	1.81	2.29	2.50	3.10
200	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.71	2.30	2.92	3.48	4.81

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Appendix F: 40 CFR 63 Subpart FFFF
Miscellaneous Organic Chemical Manufacturing (MON)

Updated 3/1/06

Source: Federal Register dated 11/10/03

Subpart FFFF--National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

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Appendix A to Subpart FFFF of Part 63--Applicability of General Provisions (Subpart A) to Subpart FFFF of Part 63

Sec. 63.2430 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards.

Sec. 63.2435 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA).

(b) An MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in Sec. 63.2550, that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of this section. An MCPU also includes any assigned storage tanks and product transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family of materials described in paragraphs (b)(1)(i) through (v) of this section.

(1) The MCPU produces material or family of materials that is described in paragraph (b)(1)(i), (ii), (iii), (iv), or (v) of this section.

(i) An organic chemical or chemicals classified using the 1987 version of SIC code 282, 283, 284, 285, 286, 287, 289, or 386, except as provided in paragraph (c)(5) of this section.

(ii) An organic chemical or chemicals classified using the 1997 version of NAICS code 325, except as provided in paragraph (c)(5) of this section.

(iii) Quaternary ammonium compounds and ammonium sulfate produced with caprolactam.

(iv) Hydrazine.

(v) Organic solvents classified in any of the SIC or NAICS codes listed in paragraph (b)(1)(i) or (ii) of this section that are recovered using nondedicated solvent recovery operations.

(2) The MCPU processes, uses, or produces any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in Sec. 63.2550.

(3) The MCPU is not an affected source or part of an affected source under another subpart of this part 63, except for process vents from batch operations within a chemical manufacturing process unit (CMPU), as identified in Sec. 63.100(j)(4). For this situation, the MCPU is the same as the CMPU as defined in Sec. 63.100, and you are subject only to the requirements for batch process vents in this subpart.

(c) The requirements in this subpart do not apply to the operations specified in paragraphs (c)(1) through (6) of this section.

(1) Research and development facilities, as defined in section 112(c)(7) of the CAA.

(2) The manufacture of ammonium sulfate as a by-product, if the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less. You must retain information, data, and analysis to document the HAP concentration in the entering slurry in order to claim this exemption.

(3) The affiliated operations located at an affected source under subparts GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), KK (National Emission Standards for the Printing and Publishing Industry), JJJJ (NESHAP: Paper and Other Web Coating), future MMMM (NESHAP: Surface Coating of Miscellaneous Metal Parts and Products), and SSSS (NESHAP: Surface Coating of Metal Coil) of this part 63. Affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater.

(4) Fabricating operations such as spinning a polymer into its end use.

(5) Production activities described using the 1997 version of NAICS codes 325131, 325181, 325188 (except the requirements do apply to hydrazine), 325314, 325991 (except the requirements do apply to reformulating plastics resins from recycled plastics products), and 325992 (except the requirements do apply to photographic chemicals).

(6) Tall oil recovery systems.

(d) If the predominant use of a transfer rack loading arm or storage tank (including storage tanks in series) is associated with a miscellaneous organic chemical manufacturing process, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the MCPU for that miscellaneous organic chemical manufacturing process. If the predominant use cannot be determined, then you may assign the loading arm or storage tank to any MCPU that shares it and is subject to this subpart. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding November 10, 2003 or, if the loading arm or storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the notification of compliance status report specified in Sec. 63.2520(d). You must redetermine the primary use at least once every 5 years, or any time you implement emissions averaging or pollution prevention after the compliance date.

(e) For nondedicated equipment used to create at least one MCPU, you may elect to develop process unit groups (PUG), determine the primary product of each PUG, and comply with the requirements of the subpart in 40 CFR part 63 that applies to that primary product as specified in Sec. 63.2535(l).

Sec. 63.2440 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous organic chemical manufacturing affected source.

(b) The miscellaneous organic chemical manufacturing affected source is the facilitywide collection of MCPU and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in Sec. 63.2435(b)(1).

(c) A new affected source is described by either paragraph (c)(1) or (2) of this section.

(1) Each affected source defined in paragraph (b) of this section for which you commenced construction or reconstruction after April 4, 2002, and you meet the applicability criteria at the time you commenced construction or reconstruction.

(2) Each dedicated MCPU that has the potential to emit 10 tons per year (tpy) of any one HAP or 25 tpy of combined HAP, and you commenced construction or reconstruction of the MCPU after April 4, 2002. For the purposes of this paragraph, an MCPU is an affected source in the definition of the term ``reconstruction'' in Sec. 63.2.

(d) An MCPU that is also a CMPU under Sec. 63.100 is reconstructed for the purposes of this subpart if, and only if, the CMPU meets the requirements for reconstruction in Sec. 63.100(l)(2).

Sec. 63.2445 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you startup your new affected source before November 10, 2003, then you must comply with the requirements for new sources in this subpart no later than November 10, 2003.

(2) If you startup your new affected source after November 10, 2003, then you must comply with the requirements for new sources in this subpart upon startup of your affected source.

(b) If you have an existing source on November 10, 2003, you must comply with the requirements for existing sources in this subpart no later than May 10, 2008.

(c) You must meet the notification requirements in Sec. 63.2515 according to the schedule in Sec. 63.2515 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.

Sec. 63.2450 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in Tables 1 through 7 to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in Sec. Sec. 63.2455 through 63.2490 (or the alternative means of compliance in Sec. 63.2495, Sec. 63.2500, or Sec. 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in Sec. Sec. 63.2515, 63.2520, and 63.2525.

(b) Determine halogenated vent streams. You must determine if an emission stream is a halogenated vent stream, as defined in Sec. 63.2550, by calculating the mass emission rate of halogen atoms in accordance with Sec. 63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.

(c) Requirements for combined emission streams. When organic HAP emissions from different emission types (e.g., continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either paragraph (c)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of organic HAP emissions in the stream (e.g., the requirements of Table 1 to this subpart for continuous process vents and the requirements of Table 4 to this subpart for emissions from storage tanks).

(2) Determine the applicable requirements based on the hierarchy presented in paragraphs (c)(2)(i) through (vi) of this section. For a combined stream, the applicable requirements are specified in the highest-listed paragraph in the hierarchy that applies to any of the individual streams that make up the combined stream. For example, if a combined stream consists of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements in paragraph (c)(2)(i) of this section for the combined stream; compliance with the requirements in paragraph (c)(2)(i) of this section constitutes compliance for the other emission streams in the combined stream. Two exceptions are that you must comply with the requirements in Table 3 to this subpart and Sec. 63.2465 for all process vents with hydrogen halide and halogen HAP emissions, and recordkeeping requirements for Group 2 applicability or compliance are still required (e.g., the requirement in Sec. 63.2525(f) to track the number of batches produced and calculate rolling annual emissions for processes with Group 2 batch process vents).

(i) The requirements of Table 2 to this subpart and Sec. 63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.

(ii) The requirements of Table 1 to this subpart and Sec. 63.2455 for continuous process vents that are routed to a control device, as defined in Sec. 63.981, including applicable monitoring, recordkeeping, and reporting.

(iii) The requirements of Table 5 to this subpart and Sec. 63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.

(iv) The requirements of Table 7 to this subpart and Sec. 63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping, and reporting.

(v) The requirements of Table 4 to this subpart and Sec. 63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping, and reporting.

(vi) The requirements of Table 1 to this subpart and Sec. 63.2455 for continuous process vents after a recovery device including applicable monitoring, recordkeeping, and reporting.

(d) Except when complying with Sec. 63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of Sec. 63.982(c) and the requirements referenced therein.

(e) Except when complying with Sec. 63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of Sec. 63.982(b) and the requirements referenced therein.

(f) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of Sec. 63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion

device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in Sec. 63.115(d)(2)(v).

(g) Requirements for performance tests. The requirements specified in paragraphs (g)(1) through (5) of this section apply instead of or in addition to the requirements specified in subpart SS of this part 63.

(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.

(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.

(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraph (g)(3)(i) or (ii) of this section.

(i) If you elect to comply with the percent reduction emission limits in Tables 1 through 7 to this subpart, and carbon disulfide is the principal organic HAP component (i.e., greater than 50 percent of the HAP in the stream by volume), then you must use Method 18, or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.

(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in Tables 1 through 7 to this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.

(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in Tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(5) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in Sec. 63.2520(d)(1).

(h) Design evaluation. To determine the percent reduction of a small control device, you may elect to conduct a design evaluation as specified in Sec. 63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation.

(i) Outlet concentration correction for combustion devices. When Sec. 63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either paragraph (i)(1) or (2) of this section apply for the purposes of this subpart.

(1) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in Sec. 63.2550, to the vent stream, or;

(2) You must correct the measured concentration for supplemental gases using Equation 1 of Sec. 63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

(j) Continuous emissions monitoring systems. Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in Sec. 63.8 and paragraphs (j)(1) through (5) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to paragraph (j)(2) of this section, except as specified in paragraph (j)(1)(i) of this section. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.

(i) If you wish to use a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before we promulgate a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in Sec. 63.8.

(ii) [Reserved]

(2) You must determine the calibration gases and reporting units for TOC CEMS in accordance with paragraph (j)(2)(i), (ii), or (iii) of this section.

(i) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.

(ii) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C 1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.

(iii) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C1. Use Method 18, ASTM D6420-99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C1.

(3) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in Sec. 63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.

(4) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in Sec. 63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations within a process. Operating block averages may be used only for batch process vent data.

(5) If you add supplemental gases, you must correct the measured concentrations in accordance with paragraph (i) of this section and Sec. 63.2460(c)(6).

(k) Continuous parameter monitoring. The provisions in paragraphs (k)(1) through (4) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of this part 63.

(1) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in Sec. 63.998(c)(1)(ii)(A).

(2) When subpart SS of this part 63 uses the term ``a range'' or ``operating range'' of a monitored parameter, it means an ``operating limit'' for a monitored parameter for the purposes of this subpart.

(3) As an alternative to measuring pH as specified in Sec. 63.994(c)(1)(i), you may elect to continuously monitor the caustic strength of the scrubber effluent.

(4) As an alternative to the inlet and outlet temperature monitoring requirements for catalytic incinerators as specified in Sec. 63.988(c)(2), you may elect to comply with the requirements specified in paragraphs (k)(4)(i) through (iii) of this section.

(i) Monitor the inlet temperature as specified in subpart SS of this part 63.

(ii) Check the activity level of the catalyst at least every 12 months and take any necessary corrective action, such as replacing the catalyst to ensure that the catalyst is performing as designed.

(iii) Maintain records of the annual checks of catalyst activity levels and the subsequent corrective actions.

(l) Startup, shutdown, and malfunction. Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart.

(m) Reporting.

(1) When Sec. Sec. 63.2455 through 63.2490 reference other subparts in this part 63 that use the term ``periodic report,'' it means ``compliance report'' for the purposes of this subpart. The compliance report must include the information specified in Sec. 63.2520(e), as well as the information specified in referenced subparts.

(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.

(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

(n) [Reserved]

(o) You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.

(p) Opening a safety device, as defined in Sec. 63.2550, is allowed at any time conditions require it to avoid unsafe conditions.

(q) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to this subpart, then you must submit documentation in your precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams.

(r) Surge control vessels and bottoms receivers. For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, you must meet emission limits and work practice standards specified in Table 4 to this subpart.

(s) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in Sec. Sec. 63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP.

Sec. 63.2455 What requirements must I meet for continuous process vents?

(a) You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section.

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in Sec. 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of Sec. 63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in Sec. 63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When Sec. 63.115(d) refers to ``emission reductions specified in Sec. 63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of Sec. 63.982(e) and the requirements referenced therein, except as specified in Sec. 63.2450 and paragraph (c)(1) of this section.

(1) When Sec. 63.993 uses the phrase ``the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase ``the TRE index value is 1.9 but <=5.0" applies for an existing affected source, and the phrase ``the TRE index value is 5.0 but <=8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

(2) [Reserved]

Sec. 63.2460 What requirements must I meet for batch process vents?

(a) You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.

(b) Group status. If a process has batch process vents, as defined in Sec. 63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in Sec. 63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (4) of this section.

(1) To calculate emissions caused by the heating of a vessel to a temperature lower than the boiling point, you must use the procedures in Sec. 63.1257(d)(2)(i)(C)(3).

(2) To calculate emissions from depressurization, you must use the procedures in Sec. 63.1257(d)(2)(i)(D)(10).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P system = absolute pressure of receiving vessel;
P_i = partial pressure of the HAP at the receiver temperature;
P_j = partial pressure of condensable (including HAP) at the receiver temperature;

MW_i = molecular weight of the individual HAP in the emission stream, with HAP partial pressures calculated at the temperature of the receiver.

(4) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in paragraph (b)(4)(i), (ii), or (iii) of this section.

(i) If you comply with the alternative standard specified in Sec. 63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in Sec. 63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in Sec. 63.1257(b)(8)(ii)(C).

(iii) If you comply with an emission limit using a flare that meets the requirements specified in Sec. 63.987.

(c) Exceptions to the requirements in subpart SS of this part 63 are specified in paragraphs (c)(1) through (7) of this section.

(1) Process condensers. Process condensers, as defined in Sec. 63.1251, are not considered to be control devices for batch process vents.

(2) Initial compliance.

(i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to this subpart FFFF by using a flare that meets the requirements of Sec. 63.987.

(ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to Sec. 63.1257(b)(8) instead of under normal operating conditions as specified in Sec. 63.7(e)(1). The requirements in Sec. 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of this subpart FFFF, references in Sec. 63.997(b)(1) to ``methods specified in Sec. 63.997(e)" include the methods specified in Sec. 63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation for a condenser, you may determine controlled emissions using the procedures specified in Sec. 63.1257(d)(3)(i)(B).

(iv) When Sec. 63.1257(d)(3)(i)(B)(7) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with ``V equal to the air flow rate," it means ``V equal to the dryer outlet gas flow rate," for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) You must demonstrate that each process condenser is properly operated according to the procedures specified in Sec. 63.1257(d)(2)(i)(C)(4)(ii) and (d)(3)(iii)(B). The reference in Sec. 63.1257(d)(3)(iii)(B) to the alternative standard in Sec. 63.1254(c) means Sec. 63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by Sec. 63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

(3) Establishing operating limits. You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to Sec. 63.2525(c).

(4) Averaging periods. As an alternative to the requirement for daily averages in Sec. 63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(5) Periodic verification. For a control device with total inlet HAP emissions less than 1 tpy, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (i.e., daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 tpy. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.

(6) Outlet concentration correction for supplemental gases. If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m\left(\frac{Q_s + Q_a}{Q_a}\right) \qquad \text{(Eq. 1)}$$

Where:

C_a = corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m = actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Q_a = total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Q_s = total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

Sec. 63.2465 What requirements must I meet for process vents that emit hydrogen halide and halogen HAP or PM HAP?

(a) You must meet each emission limit in Table 3 to this subpart that applies to you, and you must meet each applicable requirement in paragraphs (b) through (d) of this section.

(b) If any process vents within a process emit hydrogen halide and halogen HAP, you must determine and sum the uncontrolled hydrogen halide and halogen HAP emissions from each of the process vents within the process using the procedures specified in Sec. 63.1257(d)(2)(i) and (ii).

(c) If collective uncontrolled hydrogen halide and halogen HAP emissions from the process vents within a process are greater than or equal to 1,000 pounds per year (lb/yr), you must comply with Sec. 63.994 and the requirements referenced therein, except as specified in paragraphs (c)(1) through (3) of this section.

(1) When Sec. 63.994(b)(1) requires a performance test, you may elect to conduct a design evaluation in accordance with Sec. 63.1257(a)(1).

(2) When Sec. 63.994(b)(1) refers to ``a combustion device followed by a halogen scrubber or other halogen reduction device," it means any combination of control devices used to meet the emission limits specified in Table 3 to this subpart.

(3) Section 63.994(b)(2) does not apply for the purposes of this section.

(d) To demonstrate compliance with the particulate matter (PM) HAP emission limit for new sources in Table 3 to this subpart, you must comply with paragraphs (d)(1) and (2) of this section.

(1) Use Method 5 of appendix A of 40 CFR part 60 to determine the concentration of PM HAP at the inlet and outlet of a control device.

(2) Comply with the monitoring requirements specified in Sec. 63.1366(b)(1)(xi) for each fabric filter used to control PM HAP emissions.

Sec. 63.2470 What requirements must I meet for storage tanks?

(a) You must meet each emission limit in Table 4 to this subpart that applies to your storage tanks, and you must meet each applicable requirement specified in paragraphs (b) through (e) of this section.

(b) If you reduce organic HAP emissions by venting emissions to a fuel gas system or process, you must meet the requirements of Sec. 63.982(d) and the requirements referenced therein.

(c) Exceptions to subparts SS and WW of this part 63.

(1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in Sec. Sec. 63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).

(2) When the term ``storage vessel'' is used in subparts SS and WW of this part 63, the term ``storage tank,'' as defined in Sec. 63.2550 applies for the purposes of this subpart.

(d) Planned routine maintenance. The emission limits in Table 4 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.
(e) Vapor balancing alternative. As an alternative to the emission limits specified in Table 4 to this subpart, you may elect to implement vapor balancing in accordance with Sec. 63.1253(f), except as specified in paragraphs (e)(1) through (3) of this section.

(1) When Sec. 63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.

(2) To comply with Sec. 63.1253(f)(6)(i), the owner or operator of an offsite cleaning and reloading facility must comply with Sec. Sec. 63.2445 through 63.2550 instead of complying with Sec. 63.1253(f)(7)(ii).

(3) You may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in Sec. 63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.

(4) You may comply with the vapor balancing alternative in Sec. 63.1253(f) when your storage tank is filled from a barge. All requirements for tank trucks and railcars specified in Sec. 63.1253(f) also apply to barges, except as specified in Sec. 63.2470(e)(4)(i).

(i) When Sec. 63.1253(f)(2) refers to pressure testing certifications, the requirements in 40 CFR 61.304(f) apply for barges.

(ii) [Reserved]

Sec. 63.2475 What requirements must I meet for transfer racks?

(a) You must comply with each emission limit and work practice standard in Table 5 to this subpart that applies to your transfer racks, and you must meet each applicable requirement in paragraphs (b) and (c) of this section.

(b) When the term ``high throughput transfer rack'' is used in subpart SS of this part 63, the term ``Group 1 transfer rack,'' as defined in Sec. 63.2550, applies for the purposes of this subpart.

c) If you reduce organic HAP emissions by venting emissions to a fuel gas system or process, you must meet the requirements of Sec. 63.982(d) and the requirements referenced therein.

Sec. 63.2480 What requirements must I meet for equipment leaks?

(a) You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) and (c) of this section.

(b) The requirements for pressure testing in Sec. 63.1036(b) may be applied to all processes, not just batch processes.

(c) For the purposes of this subpart, pressure testing for leaks in accordance with Sec. 63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

Sec. 63.2485 What requirements must I meet for wastewater streams and liquid streams in open systems within an MCPU?

(a) You must meet each requirement in Table 7 to this subpart that applies to your wastewater streams and liquid streams in open systems within an MCPU, except as specified in paragraphs (b) through (l) of this section.

(b) Wastewater HAP. Where Sec. 63.105 and Sec. Sec. 63.132 through 63.148 refer to compounds in Table 9 of subpart G of this part 63, the compounds in Tables 8 and 9 to this subpart apply for the purposes of this subpart.

(c) Group 1 wastewater. Section 63.132(c)(1) (i) and (ii) do not apply. For the purposes of this subpart, a process wastewater stream is Group 1 for compounds in Tables 8 and 9 to this subpart if any of the conditions specified in paragraphs (c) (1) through (3) of this section are met.

(1) The total annual average concentration of compounds in Table 8 to this subpart is greater than 50 ppmw, and the combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 10,000 ppmw at any flowrate.

(2) The total annual average concentration of compounds Table 8 to this subpart is greater 50 ppmw, the combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.

(3) The total annual average concentration of compounds in Table 8 to this subpart is less than or equal to 50 ppmw, the total annual average concentration of compounds in Table 9 to this subpart is greater than or equal to 30,000 ppmw at an existing source or greater than or equal to 4,500 ppmw at a new source, and the total annual load of compounds in Table 9 to this subpart is greater than or equal to 1 tpy.

(d) Wastewater tank requirements.

(1) When Sec. Sec. 63.133 and 63.147 reference floating roof requirements in Sec. Sec. 63.119 and 63.120, the corresponding requirements in subpart WW of this part 63 may be applied for the purposes of this subpart.

(2) When Sec. 63.133(a) refers to Table 10 of subpart G of this part 63, the maximum true vapor pressure in the table shall be limited to the HAP listed in Tables 8 and 9 of this subpart FFFF.

(3) For the purposes of this subpart, the requirements of Sec. 63.133(a)(2) are satisfied by operating and maintaining a fixed roof if you demonstrate that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged.

(4) The emission limits specified in Sec. Sec. 63.133(b)(2) and 63.139 for control devices used to control emissions from wastewater tanks do not apply during periods of planned routine maintenance of the control device(s) of no more than 240 hr/yr. You may request an extension to a total of 360 hr/yr in accordance with the procedures specified in Sec. 63.2470(d).

(e) Individual drain systems. The provisions of Sec. 63.136(e)(3) apply except as specified in paragraph (e)(1) of this section.

(1) A sewer line connected to drains that are in compliance with Sec. 63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in Sec. 63.136(e)(2)(ii)(A).

(2) [Reserved]

(f) Closed-vent system requirements. When Sec. 63.148(k) refers to closed vent systems that are subject to the requirements of Sec. 63.172, the requirements of either Sec. 63.172 or Sec. 63.1034 apply for the purposes of this subpart.

(g) Halogenated vent stream requirements. For each halogenated vent stream from a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream that is vented through a closed-vent system to a combustion device to reduce organic HAP emissions, you must meet the same emission limits as specified for batch process vents in item 2 of Table 2 to this subpart.

(h) Alternative test methods.

(1) As an alternative to the test methods specified in Sec. 63.144(b)(5)(i), you may use Method 8260 or 8270 as specified in Sec. 63.1257(b)(10)(iii).

(2) As an alternative to using the methods specified in Sec. 63.144(b)(5)(i), you may conduct wastewater analyses using Method 1666 or 1671 of 40 CFR part 136 and comply with the sampling protocol requirements specified in Sec. 63.144(b)(5)(ii). The validation requirements specified in Sec. 63.144(b)(5)(iii) do not apply if you use Method 1666 or 1671 of 40 CFR part 136.

(3) As an alternative to using Method 18 of 40 CFR part 60, as specified in Sec. Sec. 63.139(c)(1)(ii) and 63.145(i)(2), you may elect to use Method 25A of 40 CFR part 60 as specified in Sec. 63.997.

(i) Offsite management and treatment option. (1) If you ship wastewater to an offsite treatment facility that meets the requirements of Sec. 63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of Sec. 63.138(h) as an alternative to having the offsite facility submit the certification specified in Sec. 63.132(g)(2).

(2) As an alternative to the management and treatment options specified in Sec. 63.132(g)(2), any affected wastewater stream (or residual removed from an affected wastewater stream) with a total annual average concentration of compounds in Table 8 to this subpart less than 50 ppmw may be transferred offsite in accordance with paragraphs (i)(2) (i) and (ii) of this section.

(i) The transferee (or you) must demonstrate that less than 5 percent of the HAP in Table 9 to this subpart is emitted from the waste management units up to the activated sludge unit.

(ii) The transferee must treat the wastewater stream or residual in a biological treatment unit in accordance with Sec. Sec. 63.138 and 63.145 and the requirements referenced therein.

(j) You must determine the annual average concentration and annual average flowrate for wastewater streams for each MCPU. The procedures for flexible operation units specified in Sec. 63.144 (b) and (c) do not apply for the purposes of this subpart.

(k) The requirement to correct outlet concentrations from combustion devices to 3 percent oxygen in Sec. Sec. 63.139(c)(1)(ii) and 63.146(i)(6) applies only if supplemental gases are combined with a vent stream from a Group 1 wastewater stream. If emissions are controlled with a vapor

recovery system as specified in Sec. 63.139(c)(2), you must correct for supplemental gases as specified in Sec. 63.2460(c)(6).

(l) Requirements for liquid streams in open systems.

(1) References in Sec. 63.149 to Sec. 63.100(b) mean Sec. 63.2435(b) for the purposes of this subpart.

(2) When Sec. 63.149(e) refers to 40 CFR 63.100(l) (1) or (2), Sec. 63.2445(a) applies for the purposes of this subpart.

(3) When Sec. 63.149 uses the term ``chemical manufacturing process unit," the term ``MCPU" applies for the purposes of this subpart.

(4) When Sec. 63.149(e)(1) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraphs (c) (1) through (3) of this section apply for the purposes of this subpart.

(5) When Sec. 63.149(e)(2) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraph (c)(2) of this section apply for the purposes of this subpart.

Sec. 63.2490 What requirements must I meet for heat exchange systems?

(a) You must comply with each requirement in Table 10 to this subpart that applies to your heat exchange systems, except as specified in paragraphs (b) and (c) of this section.

(b) The phrase ``a chemical manufacturing process unit meeting the conditions of Sec. 63.100 (b)(1) through (b)(3) of this section" in Sec. 63.104(a) means ``an MCPU meeting the conditions of Sec. 63.2435" for the purposes of this subpart.

(c) The reference to Sec. 63.100(c) in Sec. 63.104(a) does not apply for the purposes of this subpart.

Sec. 63.2495 How do I comply with the pollution prevention standard?

(a) You may elect to comply with the pollution prevention alternative requirements specified in paragraphs (a) (1) and (2) of this section in lieu of the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for any MCPU for which initial startup occurred before April 4, 2002.

(1) You must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65 percent from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. For any reduction in the HAP factor that you achieve by reducing HAP that are also volatile organic compounds (VOC), you must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor that you achieve by reducing a HAP that is not a VOC, you may not increase the VOC factor.

(2) Any MCPU for which you seek to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). You may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). You may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption.

(3) You may comply with the requirements of paragraph (a)(1) of this section for a series of processes, including situations where multiple processes are merged, if you demonstrate to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes.

(b) Exclusions.

(1) You must comply with the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for all HAP that are generated in the MCPU and that are not included in consumption, as defined in Sec. 63.2550. Hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of Sec. 63.994 and the requirements referenced therein.

(2) You may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes.

(c) Initial compliance procedures. To demonstrate initial compliance with paragraph (a) of this section, you must prepare a demonstration summary in accordance with paragraph (c) (1) of this section and calculate baseline and target annual HAP and VOC factors in accordance with paragraphs (c) (2) and (3) of this section.

(1) Demonstration plan. You must prepare a pollution prevention demonstration plan that contains, at a minimum, the information in paragraphs (c)(1) (i) through (iii) of this section for each MCPU for which you comply with paragraph (a) of this section.

(i) Descriptions of the methodologies and forms used to measure and record consumption of HAP and VOC compounds.

(ii) Descriptions of the methodologies and forms used to measure and record production of the product(s).

(iii) Supporting documentation for the descriptions provided in accordance with paragraphs (c)(1) (i) and (ii) of this section including, but not limited to, samples of operator log sheets and daily, monthly, and/or annual inventories of materials and products. You must describe how this documentation will be used to calculate the annual factors required in paragraph (d) of this section.

(2) Baseline factors. You must calculate baseline HAP and VOC factors by dividing the consumption of total HAP and total VOC by the production rate, per process, for the first 3-year period in which the process was operational, beginning no earlier than the period consisting of the 1994 through 1996 calendar years.

(3) Target annual factors. You must calculate target annual HAP and VOC factors. The target annual HAP factor must be equal to 35 percent of the baseline HAP factor. The target annual VOC factor must be lower than the baseline VOC factor by an amount equivalent to the reduction in any HAP that is also a VOC, on a mass basis. The target annual VOC factor may be the same as the baseline VOC factor if the only HAP you reduce is not a VOC.

(d) Continuous compliance requirements. You must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures specified in paragraphs (d) (1) through (3) of this section. To show continuous compliance, the annual factors must be equal to or less than the target annual factors calculated according to paragraph (c)(3) of this section.

(1) To calculate the annual factors, you must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph (d) (2) or (3) of this section, as applicable.

(2) For continuous processes, you must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (i.e., annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section.

(3) For batch processes, you must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (i.e., annual rolling average calculated every 10 batches), except as specified in paragraphs (d)(3) (i) and (ii) of this section.

(i) If you produce more than 10 batches during a month, you must calculate the annual factors at least once during that month.

(ii) If you produce less than 10 batches in a 12-month period, you must calculate the annual factors for the number of batches in the 12-month period since the previous calculations.

(e) Records. You must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPU for which you are complying with paragraph (a) of this section.

(f) Reporting.

(1) You must include the pollution prevention demonstration plan in the precompliance report required by Sec. 63.2520(c).

(2) You must identify all days when the annual factors were above the target factors in the compliance reports.

Sec. 63.2500 How do I comply with emissions averaging?

(a) For an existing source, you may elect to comply with the percent reduction emission limitations in Tables 1, 2, 4, 5, and 7 to this subpart by complying with the emissions averaging provisions specified in Sec. 63.150, except as specified in paragraphs (b) through (f) of this section.

(b) The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of Sec. 63.150(d)(5).

(c) References in Sec. 63.150 to Sec. Sec. 63.112 through 63.130 mean the corresponding requirements in Sec. Sec. 63.2450 through 63.2490, including applicable monitoring, recordkeeping, and reporting.

(d) References to ``periodic reports'' in Sec. 63.150 mean ``compliance report'' for the purposes of this subpart.

(e) For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in Sec. 63.1257(d)(2)(i) and (ii) instead of the procedures in Sec. 63.150(g)(2). Multiply the calculated emissions per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits.

(f) References to ``storage vessels'' in Sec. 63.150 mean ``storage tank'' as defined in Sec. 63.2550 for the purposes of this subpart.

Sec. 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to this subpart and the requirements in Sec. Sec. 63.2455 through 63.2470, you may comply with the emission limits in paragraph (a) of this section and demonstrate compliance in accordance with the requirements in paragraph (b) of this section.

(a) Emission limits and work practice standards.

(1) You must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph (a)(1)(i) or (ii) of this section.

(i) If you use a combustion control device, it must reduce HAP emissions as specified in paragraphs (a)(1)(i)(A), (B), and (C) of this section.

(A) To an outlet TOC concentration of 20 parts per million by volume (ppmv) or less.

(B) To an outlet concentration of hydrogen halide and halogen HAP of 20 ppmv or less.

(C) As an alternative to paragraph (a)(1)(i)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95 percent by weight in the scrubber.

(ii) If you use a noncombustion control device(s), it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halide and halogen HAP of 50 ppmv or less.

(2) Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in Tables 1 through 3 to this subpart.

(b) Compliance requirements. To demonstrate compliance with paragraph (a) of this section, you must meet the requirements of Sec. 63.1258(b)(5) beginning no later than the initial compliance date specified in Sec. 63.2445, except as specified in paragraphs (b)(1) through (9) of this section.

(1) You must comply with the requirements in Sec. 63.983 and the requirements referenced therein for closed-vent systems.

(2) When Sec. 63.1258(b)(5)(i) refers to Sec. Sec. 63.1253(d) and 63.1254(c), the requirements in paragraph (a) of this section apply for the purposes of this subpart FFFF.

(3) When Sec. 63.1258(b)(5)(i)(B) refers to ``HCl," it means ``total hydrogen halide and halogen HAP" for the purposes of this subpart FFFF.

(4) When Sec. 63.1258(b)(5)(ii) refers to Sec. 63.1257(a)(3), it means Sec. 63.2450(j)(5) for the purposes of this subpart FFFF.

(5) You must submit the results of any determination of the target analytes of predominant HAP in the notification of compliance status report.

(6) If you elect to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must meet the requirements in paragraphs (b)(6)(i) and (ii) of this section.

(i) Demonstrate initial compliance with the 95 percent reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with Sec. 63.994 and the requirements referenced therein. You must submit the results of the initial compliance demonstration in the notification of compliance status report.

(ii) Install, operate, and maintain CPMS for the scrubber as specified in Sec. Sec. 63.994(c) and 63.2450(k), instead of as specified in Sec. 63.1258(b)(5)(i)(C).

(7) If flow to the scrubber could be intermittent, you must install, calibrate, and operate a flow indicator as specified in Sec. 63.2460(c)(7).

(8) Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data.

(9) The requirements in paragraph (a) of this section do not apply to emissions from storage tanks during periods of planned routine maintenance of the control device that do not exceed 240 hr/yr. You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr in accordance with the procedures specified in Sec.

63.2470(d). You must comply with the recordkeeping and reporting specified in Sec. Sec. 63.998(d)(2)(ii) and 63.999(c)(4) for periods of planned routine maintenance.

Sec. 63.2515 What notifications must I submit and when?

(a) You must submit all of the notifications in Sec. Sec. 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) Initial notification. As specified in Sec. 63.9(b)(2), if you startup your affected source before November 10, 2003, you must submit an initial notification not later than 120 calendar days after November 10, 2003.

(2) As specified in Sec. 63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.

(c) Notification of performance test. If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in Sec. 63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to this subpart, you must also submit the test plan required by Sec. 63.7(c) and the emission profile with the notification of the performance test.

Sec. 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 11 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under Sec. 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in Sec. 63.2445 and ending on June 30 or December 31, whichever date is the first date following the end of the first 6 months after the compliance date that is specified for your affected source in Sec. 63.2445.

(2) The first compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the first reporting period specified in paragraph (b)(1) of this section.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) Precompliance report. You must submit a precompliance report to request approval for any of the items in paragraphs (c)(1) through (7) of this section. We will either approve or disapprove

the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date. To change any of the information submitted in the report, you must notify us 60 days before the planned change is to be implemented.

(1) Requests for approval to set operating limits for parameters other than those specified in Sec. Sec. 63.2455 through 63.2485 and referenced therein. Alternatively, you may make these requests according to Sec. 63.8(f).

(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to Sec. 63.2460(c)(5) are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to Sec. 63.2460(c)(3).

(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions in accordance with Sec. 63.1257(d)(2)(ii).

(5) The pollution prevention demonstration plan required in Sec. 63.2495(c)(1), if you are complying with the pollution prevention alternative.

(6) Documentation of the practices that you will implement to minimize HAP emissions from streams that contain energetics and organic peroxides, and rationale for why meeting the emission limit specified in Tables 1 through 7 to this subpart would create an undue safety hazard.

(7) For fabric filters that are monitored with bag leak detectors, an operation and maintenance plan that describes proper operation and maintenance procedures, and a corrective action plan that describes corrective actions to be taken, and the timing of those actions, when the PM concentration exceeds the set point and activates the alarm.

(d) Notification of compliance status report. You must submit a notification of compliance status report according to the schedule in paragraph (d)(1) of this section, and the notification of compliance status report must contain the information specified in paragraph (d)(2) of this section.

(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in Sec. 63.2445.

(2) The notification of compliance status report must include the information in paragraphs (d)(2)(i) through (ix) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to Sec. Sec. 63.2455 through 63.2485. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) All operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for control devices.

(vi) Identification of parts of the affected source subject to overlapping requirements described in Sec. 63.2535 and the authority under which you will comply.

(vii) The information specified in Sec. 63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 6 to this subpart.

(viii) Identify storage tanks for which you are complying with the vapor balancing alternative in Sec. 63.2470(e).

(ix) Records as specified in Sec. 63.2535(i)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.

(e) Compliance report. The compliance report must contain the information specified in paragraphs (e)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in Sec. 63.2550, according to paragraphs (e)(5)(i), (ii), and (iii) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in Sec. 63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in Sec. 63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in Sec. 63.2525(i)(4) and records of primary product redeterminations as specified in Sec. 63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, SS, TT, UU, WW, and GGG of this part 63.

(10) Notification of process change.

(i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.

(C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point.

Sec. 63.2525 What records must I keep?

You must keep the records specified in paragraphs (a) through (k) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, TT, UU, WW, and GGG of this part 63.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in Sec. 63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios updated each time a different operating scenario is put into operation.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in paragraphs (e)(1) through (4) of this section for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No record is required if you documented in the notification of compliance status report that the MCPU does not process, use, or produce HAP.

(1) A record of the day each batch was completed.

(2) A record of whether each batch operated was considered a standard batch.

(3) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(4) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with Sec. 63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in Sec. 63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by Sec. 63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (i.e., identify the overlapping equipment between process units) required by Sec. 63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by Sec. 63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by Sec. 63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by Sec. 63.2535(l)(2)(iv).

(j) In the SSMP required by Sec. 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

Sec. 63.2535 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

For any equipment, emission stream, or wastewater stream subject to the provisions of both this subpart and another rule, you may elect to comply only with the provisions as specified in paragraphs (a) through (l) of this section. You also must identify the subject equipment, emission stream, or wastewater stream, and the provisions with which you will comply, in your notification of compliance status report required by Sec. 63.2520(d).

(a) Compliance with other subparts of this part 63. If you have an MCPU that includes a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63, you must comply with the emission limits; operating limits; work practice standards; and the compliance, monitoring, reporting and recordkeeping requirements for batch process vents in this subpart, and you must continue to comply with the requirements in subparts F, G, and H of this part 63 that are applicable to the CMPU and associated equipment.

(b) Compliance with 40 CFR parts 264 and 265, subparts AA, BB, and/or CC.

(1) After the compliance dates specified in Sec. 63.2445, if a control device that you use to comply with this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC; or the monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC; and you comply with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC that would apply to the device if your facility had final-permitted status, you may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart; or with the monitoring and recordkeeping requirements in 40 CFR part 264 or 265 and the reporting requirements in 40 CFR part 264, as described in this paragraph (b)(1), which constitute compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. If you elect to comply with the

monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, you must report the information described in Sec. 63.2520(e).

(2) After the compliance dates specified in Sec. 63.2445, if you have an affected source with equipment that is also subject to 40 CFR part 264, subpart BB, or to 40 CFR part 265, subpart BB, then compliance with the recordkeeping and reporting requirements of 40 CFR parts 264 and/or 265 may be used to comply with the recordkeeping and reporting requirements of this subpart, to the extent that the requirements of 40 CFR parts 264 and/or 265 duplicate the requirements of this subpart.

(c) Compliance with 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y. After the compliance dates specified in Sec. 63.2445, you are in compliance with the provisions of this subpart FFFF for any storage tank that is assigned to an MCPU and that is both controlled with a floating roof and in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y. You are in compliance with this subpart FFFF if you have a storage tank with a fixed roof, closed-vent system, and control device in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart FFFF. Alternatively, if a storage tank assigned to an MCPU is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements for Group 1 storage tanks in this subpart FFFF.

(d) Compliance with subpart I, GGG, or MMM of this part 63. After the compliance dates specified in Sec. 63.2445, if you have an affected source with equipment subject to subpart I, GGG, or MMM of this part 63, you may elect to comply with the provisions of subpart H, GGG, or MMM of this part 63, respectively, for all such equipment.

(e) Compliance with subpart GGG of this part 63 for wastewater. After the compliance dates specified in Sec. 63.2445, if you have an affected source subject to this subpart and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in Sec. 63.1256, you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams.

(f) Compliance with subpart MMM of this part 63 for wastewater. After the compliance dates specified in Sec. 63.2445, if you have an affected source subject to this subpart, and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in Sec. 63.1362(d), you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams (except that the 99 percent reduction requirement for streams subject to Sec. 63.1362(d)(10) still applies).

(g) Compliance with other regulations for wastewater. After the compliance dates specified in Sec. 63.2445, if you have a Group 1 wastewater stream that is also subject to provisions in 40 CFR parts 260 through 272, you may elect to determine whether this subpart or 40 CFR parts 260 through 272 contain the more stringent control requirements (e.g., design, operation, and inspection requirements for waste management units; numerical treatment standards; etc.) and the more stringent testing, monitoring, recordkeeping, and reporting requirements. Compliance with provisions of 40 CFR parts 260 through 272 that are determined to be more stringent than the requirements of this subpart constitute compliance with this subpart. For example, provisions of 40 CFR parts 260 through 272 for treatment units that meet the conditions specified in Sec. 63.138(h) constitute compliance with this subpart. You must identify in the notification of compliance status report required by Sec. 63.2520(d) the information and procedures that you used to make any stringency determinations.

(h) Compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR. After the compliance dates specified in Sec. 63.2445, if you have an MCPU that contains equipment subject to the provisions of this subpart that are also subject to the provisions of 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to apply this subpart to all such equipment in the MCPU. If an MCPU subject to the provisions of this subpart has equipment to which this subpart does not apply but which is subject to a standard in 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to comply with the requirements for Group 1 process vents in this subpart for such equipment. If you elect any of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (h), will constitute compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.

(i) Compliance with 40 CFR part 61, subpart BB.

(1) After the compliance dates specified in Sec. 63.2445, a Group 1 transfer rack, as defined in Sec. 63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, you are required to comply only with the provisions of this subpart.

(2) After the compliance dates specified in Sec. 63.2445, a Group 2 transfer rack, as defined in Sec. 63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, is required to comply with the provisions of either paragraph (l)(2)(i) or (ii) of this section.

(i) If the transfer rack is subject to the control requirements specified in Sec. 61.302 of 40 CFR part 61, subpart BB, then you may elect to comply with either the requirements of 40 CFR part 61, subpart BB, or the requirements for Group 1 transfer racks under this subpart FFFF.

(ii) If the transfer rack is subject only to reporting and recordkeeping requirements under 40 CFR part 61, subpart BB, then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 transfer racks, and you are exempt from the reporting and recordkeeping requirements in 40 CFR part 61, subpart BB.

(j) Compliance with 40 CFR part 61, subpart FF. After the compliance date specified in Sec. 63.2445, for a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR 61.342(c) through (h), and is not exempt under 40 CFR 61.342(c)(2) or (3), you may elect to comply only with the requirements for Group 1 wastewater streams in this subpart FFFF. If a Group 2 wastewater stream is exempted from 40 CFR 61.342(c)(1) under 40 CFR 61.342(c)(2) or (3), then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 wastewater streams, and you are exempt from the requirements in 40 CFR part 61, subpart FF.

(k) Compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V. After the compliance date specified in Sec. 63.2445, if you have an affected source with equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. Alternatively, if you have an affected source with no continuous process vents and equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to comply with 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, as applicable, for all such equipment.

(l) Applicability of process units included in a process unit group. You may elect to develop and comply with the requirements for PUG in accordance with paragraphs (l)(1) through (3) of this section.

(1) Procedures to create process unit groups. Develop and document changes in a PUG in accordance with the procedures specified in paragraphs (l)(1)(i) through (v) of this section.

(i) Initially, identify an MCPU that is created from nondedicated equipment that will operate on or after November 10, 2003 and identify all processing equipment that is part of this MCPU, based on descriptions in operating scenarios.

(ii) Add to the group any other nondedicated MCPU and other nondedicated process units expected to be operated in the 5 years after the date specified in paragraph (l)(1)(i) of this section, provided they satisfy the criteria specified in paragraphs (l)(1)(ii)(A) through (C) of this section. Also identify all of the processing equipment used for each process unit based on information from operating scenarios and other applicable documentation.

(A) Each process unit that is added to a group must have some processing equipment that is also part of one or more process units in the group.

(B) No process unit may be part of more than one PUG.

(C) The processing equipment used to satisfy the requirement of paragraph (l)(1)(ii)(A) of this section may not be a storage tank or control device.

(iii) The initial PUG consists of all of the processing equipment for the process units identified in paragraphs (l)(1)(i) and (ii) of this section. As an alternative to the procedures specified in paragraphs (l)(1)(i) and (ii) of this section, you may use a PUG that was developed in accordance with Sec. 63.1360(h) as your initial PUG.

(iv) Add process units developed in the future in accordance with the conditions specified in paragraphs (l)(1)(ii)(A) and (B) of this section.

(v) Maintain records that describe the process units in the initial PUG, the procedure used to create the PUG, and subsequent changes to each PUG as specified in Sec. 63.2525(i). Submit the records in reports as specified in Sec. 63.2520(d)(2)(ix) and (e)(8).

(2) Determine primary product. You must determine the primary product of each PUG created in paragraph (l)(1) of this section according to the procedures specified in paragraphs (l)(2)(i) through (iv) of this section.

(i) The primary product is the type of product (e.g., organic chemicals subject to Sec. 63.2435(b)(1), pharmaceutical products subject to Sec. 63.1250, or pesticide active ingredients subject to Sec. 63.1360) expected to be produced for the greatest operating time in the 5-year period specified in paragraph (l)(1)(ii) of this section.

(ii) If the PUG produces multiple types of products equally based on operating time, then the primary product is the type of product with the greatest production on a mass basis over the 5-year period specified in paragraph (l)(1)(ii) of this section.

(iii) At a minimum, you must redetermine the primary product of the PUG following the procedure specified in paragraphs (l)(2)(i) and (ii) of this section every 5 years.

(iv) You must record the calculation of the initial primary product determination as specified in Sec. 63.2525(i)(3) and report the results in the notification of compliance status report as specified in Sec. 63.2520(d)(8)(ix). You must record the calculation of each redetermination of the primary product as specified in Sec. 63.2525(i)(5) and report the calculation in a compliance report submitted no later than the report covering the period for the end of the 5th year after cessation of production of the previous primary product, as specified in Sec. 63.2520(e)(8).

(3) Compliance requirements. (i) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material described in Sec. 63.2435(b)(1), then you must comply with this subpart for each MCPU in the PUG. You may also elect to comply with this subpart for all other process units in the PUG, which constitutes compliance with other part 63 rules.

(ii) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material not described in Sec. 63.2435(b)(1), then you must comply with paragraph (l)(3)(ii)(A), (B), or (C) of this section, as applicable.

(A) If the primary product is subject to subpart GGG of this part 63, then comply with the requirements of subpart GGG for each MCPU in the PUG.

(B) If the primary product is subject to subpart MMM of this part 63, then comply with the requirements of subpart MMM for each MCPU in the PUG.

(C) If the primary product is subject to any subpart in this part 63 other than subpart GGG or subpart MMM, then comply with the requirements of this subpart for each MCPU in the PUG.

(iii) The requirements for new and reconstructed sources in the alternative subpart apply to all MCPU in the PUG if and only if the affected source under the alternative subpart meets the requirements for construction or reconstruction.

Sec. 63.2540 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in Sec. Sec. 63.1 through 63.15 apply to you.

Sec. 63.2545 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency also has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not delegated to the State, local, or tribal agency.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in Sec. 63.2450(a) under Sec. 63.6(g).

(2) Approval of major alternatives to test methods under Sec. 63.7(e)(2)(ii) and (f) and as defined in Sec. 63.90.

(3) Approval of major alternatives to monitoring under Sec. 63.8(f) and as defined in Sec. 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under Sec. 63.10(f) and as defined in Sec. 63.90.

Sec. 63.2550 What definitions apply to this subpart?

(a) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in Sec. 63.981, except as specified in Sec. Sec. 63.2450(k)(2) and (m), 63.2470(c)(2), 63.2475(b), and paragraph (i) of this section.

(b) For an affected source complying with the requirements in subpart TT of this part 63, the terms used in this subpart and in subpart TT of this part 63 have the meaning given them in Sec. 63.1001.

(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in Sec. 63.1020.

(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in Sec. 63.1061, except as specified in Sec. Sec. 63.2450(m), 63.2470(c)(2), and paragraph (i) of this section.

(e) For an affected source complying with the requirements in Sec. Sec. 63.132 through 63.149, the terms used in this subpart and Sec. Sec. 63.132 through 63.149 have the meaning given them in Sec. Sec. 63.101 and 63.111, except as specified in Sec. 63.2450(m) and paragraph (i) of this section.

(f) For an affected source complying with the requirements in Sec. Sec. 63.104 and 63.105, the terms used in this subpart and in Sec. Sec. 63.104 and 63.105 of this subpart have the meaning given them in Sec. 63.101, except as specified in Sec. Sec. 63.2450(m), 63.2490(b), and paragraph (i) of this section.

(g) For an affected source complying with requirements in Sec. Sec. 63.1253, 63.1257, and 63.1258, the terms used in this subpart and in Sec. Sec. 63.1253, 63.1257, and 63.1258 have the meaning given them in Sec. 63.1251, except as specified in Sec. 63.2450(m) and paragraph (i) of this section.

(h) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F, have the meaning given them in 40 CFR 65.2.

(i) All other terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, and in this paragraph (i). If a term is defined in Sec. 63.2, Sec. 63.101, Sec. 63.111, Sec. 63.981, Sec. 63.1001, Sec. 63.1020, Sec. 63.1061, Sec. 63.1251, or Sec. 65.2 and in this paragraph (i), the definition in this paragraph (i) applies for the purposes of this subpart.

Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to this subpart), chillers and refrigeration systems, and other equipment and activities that are not directly involved (i.e., they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or isolated intermediate.

Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.

Batch process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;
(2) Bottoms receivers;
(3) Surge control vessels;

(4) Gaseous streams routed to a fuel gas system(s);

(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limits and work practice standards in Tables 4, 6, and 7 to this subpart;

(6) Drums, pails, and totes;

(7) Flexible elephant trunk systems that draw ambient air (i.e., the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP or less than 200 lb/yr. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in Sec. 63.1257(d)(2)(ii); equations specified in Sec. 63.1257(d)(2)(i), as applicable; test data using Methods 18 of 40 CFR part 60, appendix A; or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part 63.

Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.

Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in Sec. 63.2.

Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.

Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in Sec. 63.107(b) through (h), or meets the criteria specified in Sec. 63.107(i), except:

(1) The reference in Sec. 63.107(e) to a chemical manufacturing process unit that meets the criteria of Sec. 63.100(b) means an MCPU that meets the criteria of Sec. 63.2435(b);

(2) The reference in Sec. 63.107(h)(4) to Sec. 63.113 means Table 1 to this subpart;

(3) The references in Sec. 63.107(h)(7) to Sec. Sec. 63.119 and 63.126 mean Tables 4 and 5 to this subpart; and

(4) For the purposes of Sec. 63.2455, all references to the characteristics of a process vent (e.g., flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.

(5) The reference to ``total organic HAP'' in Sec. 63.107(d) means ``total HAP'' for the purposes of this subpart FFFF.

Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in Sec. 63.2435(d) also may be shared by other processes.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.

Excess emissions means emissions greater than those allowed by the emission limit.

Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (e.g., blue, black, and red resins).

Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.

Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.

Group 1 continuous process vent means a continuous process vent with a total resource effectiveness index value, calculated according to Sec. 63.2455(b), that is less than 1.9 at an existing source and less than 5.0 at a new source.

Group 2 continuous process vent means a continuous process vent that does not meet the definition of a Group 1 continuous process vent.

Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.

Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in Sec. 63.111, greater than or equal to 1.5 pound per square inch absolute.

Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in Sec. 63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in Sec. 63.132(d) for compounds in Table 8 to subpart G of this part 63.

Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in Sec. 63.115(d)(2)(v).

Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of Sec. 63.180(d). The provisions of Sec. 63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Isolated intermediate means a product of a process that is stored before subsequent processing. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage.

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in Sec. 63.111, except that it applies to all HAP rather than only organic HAP.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in Sec. 63.2435(b). For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products;

(4) Quality assurance/quality control laboratories are not considered part of any process; and

(5) Ancillary activities are not considered a process or part of any process.

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in Sec. 63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o-structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other equipment within the process or a product storage tank. A process tank has emissions that are related to the characteristics of the batch cycle, and it does not accumulate product over multiple batches. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams for reuse in a process at the affected source and from wastewater streams for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.

Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.

Startup means the setting in operation of a continuous operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in Sec. 63.2435(d). The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks;

(5) Bottoms receivers;

(6) Surge control vessels; and

(7) Process tanks.

Supplemental gases means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not considered supplemental gases. Air required to operate combustion device burner(s) is not considered supplemental gases.

Surge control vessel means feed drums, recycle drums, and intermediate vessels immediately preceding continuous reactors, air-oxidation reactors, or distillation operations. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous reactors, air-oxidation reactors, or distillation operations.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in Sec. 63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.

Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste

management units include wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater means water that is discarded from an MCPU through a single POD and that contains either: an annual average concentration of compounds in Table 8 or 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in Table 8 or 9 to this subpart of at least 10,000 ppmw at any flowrate. The following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a stream that contains only wastewater as defined in this paragraph (i).

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart FFFF of Part 63

As required in Sec. 63.2455, you must meet each emission limit and work practice standard in the following table that applies to your continuous process vents:

Table 1 to Subpart FFFF of Part 63.--Emission Limits and Work Practice Standards for Continuous Process Vents

For Each	For which	Then you must
1. Group 1 continuous process vent	a. Not applicable	i. Reduce emissions of total organic HAP by =98 percent by weight or to an outlet process concentration <=20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream.	a. You use a combustion control device to control organic HAP emissions.	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by =99 percent by weight, or to <=0.45 kg/hr, or to <=20 ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to <=0.45 kg/hr or to a concentration <=2

		ppmv.
3. Group 2 continuous process vent at an existing source.	You use a recovery device to maintain the TRE level >1.9 but ≤5.0.	Comply with the requirements in Sec. 63.993 and the requirements referenced
4. Group 2 continuous process vent at a new source.	You use a recovery device to maintain the TRE level >5.0 but ≤8.0.	Comply with the requirements in Sec. 63.993 and the requirements referenced

As required in § 63.2460, you must meet each emission limit and work practice standard in the following table that applies to your batch process vents:

TABLE 2 TO SUBPART FFFF OF PART 63. EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BATCH PROCESS VENTS

For each	Then you must	And you must
1. Process with Group 1 batch process vents.	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of control devices (except a flare); or	Not applicable.
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of recovery devices; or	Not applicable.
	c. For all batch process vents within the process that are not controlled by venting through a closed-vent system to a flare or to any other combination of control devices that reduce total organic HAP to an outlet concentration ≤20 ppmv as TOC or total organic HAP, reduce organic HAP emissions by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of recovery devices that reduce collective emissions by ≥95 percent by weight and/or any combination of control devices that reduce collective emissions by ≥98 percent by weight.	Not applicable.
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥99 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kg/hr; or iii. Reduce overall emissions of hydrogen halide and halogen HAP to a concentration ≤20 ppmv.
	b. Use a halogen reduction device before the combustion control device.	Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

As required in § 63.2465, you must meet each emission limit in the following table that applies to your process vents that contain hydrogen halide and halogen HAP emissions or PM HAP emissions:

TABLE 3 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS FOR HYDROGEN HALIDE AND HALOGEN HAP EMISSIONS OR PM HAP EMISSIONS FROM PROCESS VENTS

For Each	You must
1. Process with uncontrolled hydrogen halide and halogen HAP emissions from process vents ≥1,000 lb/yr.	Reduce collective hydrogen halide and halogen HAP emissions by ≥99 percent by weight or to an outlet concentration <20 ppmv by venting through a closed-vent system to any combination of control devices.
2. Process at a new source with uncontrolled PM HAP emissions from process vents ≥400 lb/yr.	Reduce overall PM HAP emissions by ≥97 percent by weight.

As required in § 63.2470, you must meet each emission limit in the following table that applies to your storage tanks:

TABLE 4 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS FOR STORAGE TANKS

For Each	For which	Then you must
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is ≥76.6 kilopascals.	i. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process.
	b. The maximum true vapor pressure of total HAP at the storage temperature is ≤76.6 kilopascals.	i. Comply with the requirements of subpart WW of this part, except as specified in § 63.2470; or ii. Reduce total HAP emissions by ≥95 percent by weight or to <20 ppmv of TOC or organic HAP and <20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process.
2. Halogenated vent stream from a Group 1 storage tank.	You use a combustion control device to control organic HAP emissions.	Meet one of the emission limit options specified in Item 2.a.i or ii. in Table 1 to this subpart.

As required in § 63.2475, you must meet each emission limit and work practice standard in the following table that applies to your transfer racks:

TABLE 5 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR TRANSFER RACKS

For Each	You must
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or process; or d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, to ≤0.45 kg/hr, or to ≤20 ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

As required in § 63.2480, you must meet each requirement in the following table that applies to your equipment leaks:

TABLE 6 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR EQUIPMENT LEAKS

For all	And that is part of	You must
1. Equipment that is in organic HAP service at an existing source.	a. An MCPU with no continuous process vents.	i. Comply with the requirements of subpart TT of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or iii. Comply with the requirements of 40 CFR part 65, subpart F.
	b. An MCPU with at least one continuous process vent.	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.
2. Equipment that is in organic HAP service at a new source.	a. Any MCPU	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.

As required in § 63.2485, you must meet each requirement in the following table that applies to your wastewater streams and liquid streams in open systems within an MCPU:

TABLE 7 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR WASTEWATER STREAMS AND LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

For each	You must
1. Process wastewater stream	Comply with the requirements in §§ 63.132 through 63.148 and the requirements referenced therein, except as specified in § 63.2485.
2. Maintenance wastewater stream	Comply with the requirements in § 63.105 and the requirements referenced therein, except as specified in § 63.2485.
3. Liquid streams in an open system within an MCPU.	Comply with the requirements in § 63.149 and the requirements referenced therein, except as specified in § 63.2485.

As specified in § 63.2485, the partially soluble HAP in wastewater that are subject to management and treatment requirements in this subpart FFFF are listed in the following table:

TABLE 8 TO SUBPART FFFF OF PART 63.—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical Name and CAS No.
1. 1,1,1–Trichloroethane (methyl chloroform) 71556
2. 1,1,2,2–Tetrachloroethane 79345
3. 1,1,2–Trichloroethane 4. 1,1–Dichloroethylene (vinylidene chloride) 75354
5. 1,2–Dibromoethane 106934
6. 1,2–Dichloroethane (ethylene dichloride) 107062
7. 1,2–Dichloropropane 78875
8. 1,3–Dichloropropene 542756
9. 2,4,5–Trichlorophenol 95954
10. 2–Butanone (MEK) 78933
11. 1,4–Dichlorobenzene 106467
12. 2–Nitropropane 79469
13. 4–Methyl-2-pentanone (MIBK) 108101
14. Acetaldehyde 75070
15. Acrolein 107028
16. Acrylonitrile 107131
17. Allyl chloride 107051
18. Benzene 71432
19. Benzyl chloride 100447
20. Biphenyl 92524
21. Bromoform (tribromomethane) 75252
22. Bromomethane 74839
23. Butadiene 106990
24. Carbon disulfide. 75150
25. Chlorobenzene 108907
26. Chloroethane (ethyl chloride) 75003
27. Chloroform 67663
28. Chloromethane 74873
29. Chloroprene 126998
30. Cumene 98828
31. Dichloroethyl ether111444
32. Dinitrophenol 51285
33. Epichlorohydrin 106898
34. Ethyl acrylate 140885
35. Ethylbenzene 100414
36. Ethylene oxide 75218
37. Ethylidene dichloride 75343
38. Hexachlorobenzene 118741
39. Hexachlorobutadiene 87683
40. Hexachloroethane 67721
41. Methyl methacrylate 80626
42. Methyl-t-butyl ether 1634044
43. Methylene chloride 75092
44. N-hexane 110543
45. N,N-dimethylaniline 121697
46. Naphthalene 91203
47. Phosgene 75445
48. Propionaldehyde 123386
49. Propylene oxide 75569

50. Styrene 100425
51. Tetrachloroethylene (perchloroethylene) 127184
52. Tetrachloromethane (carbon tetrachloride) 56235
53. Toluene 108883
54. Trichlorobenzene (1,2,4-) 120821
55. Trichloroethylene 79016
56. Trimethylpentane 540841
57. Vinyl acetate 108054
58. Vinyl chloride 75014
59. Xylene (m) 108383
60. Xylene (o) 95476
61. Xylene (p) 106423

As specified in § 63.2485, the soluble HAP in wastewater that are subject to management and treatment requirements of this subpart FFFF are listed in the following table:

TABLE 9 TO SUBPART FFFF OF PART 63.—SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical Name and CAS No.
1. Acetonitrile 75058
2. Acetophenone 98862
3. Diethyl sulfate 64675
4. Dimethyl hydrazine (1,1) 57147
5. Dimethyl sulfate 77781
6. Dinitrotoluene (2,4) 121142
7. Dioxane (1,4) 123911
8. Ethylene glycol dimethyl ether 110714
9. Ethylene glycol monobutyl ether acetate 112072
10. Ethylene glycol monomethyl ether acetate 110496
11. Isophorone 78591
12. Methanol 67561
13. Nitrobenzene 98953
14. Toluidine (o-) 95534
15. Triethylamine 121448

As required in § 63.2490, you mustmeet each requirement in the followingtable that applies to your heat exchangesystems:

TABLE 10 TO SUBPART FFFF OF PART 63.—WORK PRACTICE STANDARDS FOR HEAT EXCHANGE SYSTEMS

For Each	You must
Heat exchange system, as defined in § 63.101	Comply with the requirements of § 63.104 and the requirements referenced therein, except as specified in § 63.2490.

As required in § 63.2520(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

TABLE 11 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit a(n)	The report must contain	You must submit the report
1. Precompliance report	The information specified in § 63.2520(c).	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report.	The information specified in § 63.2520(d).	No later than 150 days after the compliance date specified in § 63.2445.
3. Compliance report	The information specified in § 63.2520(e).	Semiannually according to the requirements in § 63.2520(b).

Appendix A to Subpart FFFF of Part 63--Applicability of General Provisions (Subpart A) to Subpart FFFF of Part 63

§ 63.1 Applicability.

(a) *General.*

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61, or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60,part 61, or other part 63 subpart A (General) Provision.

(iii) The General Provisions in this Subpart A do not apply to regulations developed pursuant to section112(r) of the amended Act., unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD–13), Research Triangle Park, North Carolina 27711.

(7) [Reserved]

(8) [Reserved]

(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word ‘‘calendar’’ is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall

be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(13) [Reserved]

(14) [Reserved]

(b) *Initial applicability determination for this part.*

(1) The provisions of this part apply to the owner or operator of any stationary source that -

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part, must keep a record as specified in § 63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.*

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in § 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether –

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3) [Reserved]

(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101–549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator’s satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator’s satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator’s determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the

SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance -- the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques -- the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications,

inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency -- the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time -- the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source..

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: ''responsible official'' shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 ^{o}K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part and/or

(2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere
g = gram
Hz = hertz

J = joule
°K = degree Kelvin
kg = kilogram
l = liter
m = meter
m^3 = cubic meter
mg = milligram = 10^{-3} gram
ml = milliliter = 10^{-3} liter
mm = millimeter = 10^{-3} meter
Mg = megagram = 10^{6} gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10^{-9} gram
nm = nanometer = 10^{-9} meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
μg = microgram = 10^{-6} gram
μl = microliter = 10^{-6} liter

(b) Other units of measure:

Btu = British thermal unit
°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F = degree Fahrenheit
ft = feet
ft^2 = square feet
ft^3 = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H_2O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent

min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
scmm= cubic meter at standard conditions per minute
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd^2 = square yards
yr = year

(c) Miscellaneous:
act = actual
avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

§ 63.4 Prohibited activities and circumvention.

(a) *Prohibited activities*.

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3) [Reserved]

(4) [Reserved]

(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(3) [Reserved]

(c) *Severability.* Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability.*

(1) This section implements the preconstruction review requirements of section 112(i)(1) for sources subject to a relevant emission standard that has been promulgated in this part. In addition, this section includes other requirements for constructed and reconstructed stationary sources that are or become subject to a relevant promulgated emission standard.

(2) After the effective date of a relevant standard promulgated under this part, the requirements in this section apply to owners or operators who construct a new source or reconstruct a source after the proposal date of that standard. New or reconstructed sources that start up before the standard's effective date are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(b) *Requirements for existing, newly constructed, and reconstructed sources*.

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of

the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction*. The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements*.

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see
§ 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction*. Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section - (i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information*. The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the re-placements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with - (i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

§ 63.6 Compliance with standards and maintenance requirements.

(a) *Applicability.*

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless --

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) *Compliance dates for new and reconstructed sources*.

(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section

112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with § 63.9(d).

(6) [Reserved]

(7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) *Compliance dates for existing sources.*

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)–(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance

procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) Startup, shutdown, and malfunction plan. **Applies, expcept for information regarding Group 2 emission points, and equipment leaks is not required in the SSMP, as specified in Sec.63.2525(j).**

(i)The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard.

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii)-(iv) **No, Sec. 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and Sec. 63.2520(e)(4) specifies reporting requirements.**

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and

copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The Administrator must request that the owner or operator submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the

revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards* -

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance*.

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance*. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other

information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard*.

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards* –**Only for flares for which Method 22 observations are required as part of a flare compliance assessment.**

(1) *Applicability*. The opacity and visible emission standards set forth in this part must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations*. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions,

and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records*. The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system*.

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance*. The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the FEDERAL REGISTER.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions*

(i) *Early reductions*. Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions*. Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance*. Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may

request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(*1*) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(*2*) The date by which final compliance is to be achieved;

(C) [Reserved]

(D) [Reserved]

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance*. Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of

any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator

will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.* **Applies except substitute 150days for 180days.**

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)- (viii) [Reserved]

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act. **Applies and this paragraph also applies to flare compliance assessments as specified under Sec. 63.997(b)(2).**

(b) *Notification of performance test.*

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to

review an approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program*. **Applies except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents.**

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan*. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan*.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator’s approval or disapproval of a plan, nor the Administrator’s failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) *Performance test method audit program.* The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

(d) *Performance testing facilities*. If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests*.

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. **Applies except that the performance tests for batch process vents must be conducted under worst-case conditions as specified in Sec.63.2460.**

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator -

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method -*

(1) *General*. Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator’s responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting.*

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is ‘‘completed’’ when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the, close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required

under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the
results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests*.

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(I), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) Approval of request to waive performance test. The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she -

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) *Conduct of monitoring.*

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is –

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan for CMS as specified in § 63.6(e)(3).

(2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: **Do not apply. CMS requirements are specified in referenced subparts G and SS of this part 63.**

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. **Only for the alternative standard, but sec. 63.8(c)(4)(i) does not apply because the alternative standard does not require continuous opacity monitoring sytems (COMS).**

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. **Only for the alternative standard, but sec. 63.8(c)(4)(i) does not apply because the alternative standard does not require continuous opacity monitoring sytems (COMS).**

(5) **Does not apply. Subpart FFFF does not contain opacity or VE limits.**

(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation. **Applies only for the alternative standard in Sec.63.2505.**

(7) **Only for the alternative standard in Sec.63.2505. Requirements for CPMS are specified in referenced subparts G and SS of this part 63.**

(i) A CMS is out of control if -

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3). **Only for the alternative standard in Sec.63.2505. Requirements for CPMS are specified in referenced subparts G and SS of this part 63.**

(d) *Quality control program*. **Applies only for the alternative standard in Sec.63.2505**

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) *Performance evaluation of continuous monitoring systems* – **Applies only for the alternative standard in Sec. 63.2505, but Sec.63.8(e)(5)(ii) does not apply because the alternative standard does not require COMS.**

(1) *General*. When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation*. The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan*. Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator' failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates*. The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results*.

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) **[Reserved]**

(f) *Use of an alternative monitoring method* -

(1) *General*. Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard. **Applies except you may also request approval using the precompliance report.**

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following: **Applies except you may also request approval using the precompliance report.**

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail. **Applies except you may also request approval using the precompliance report.**

(4) **Applies except you may also request approval using the precompliance report.**

(i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.* **Applies except you may also request approval using the precompliance report.**

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with --

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) Alternative to the relative accuracy test. An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows: **Only applicable when using CEMS to demonstrate compliance, including the alternative standard Sec.63.2505.**

(i) *Criteria for approval of alternative procedures*. An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test*. The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test*. The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator

shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data.* **Only when using CEMS, including for the alternative standard, in Sec.63.2505, except that the requirements for COMS do not apply because subpart FFFF has no opacity or VE limits, and 63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in Sec.63.2450(j).**

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) **[Reserved]**

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) **Do not apply. Requirements for CEMS are specified in Sec.63.2450(j). Requirements for CPMS are specified in referenced subparts G and SS of this part 63.**

§ 63.9 Notification requirements.

(a) *Applicability and general information.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.*

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that

the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and

(ii) [Reserved]

(iii) [Reserved]

(iv) [Reserved]; and

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) *Request for extension of compliance*. If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements*. An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test*. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations*. **Subpart FFFF does not contain opacity or VE limits.**

(g) *Additional notification requirements for sources with continuous monitoring systems*. **Applies only for the alternative standard in Sec. 63.2505.** The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.* **Applies except subpart FFFF has no opacity or VE limits, and 63.9(h)(2)(i)(A) through G and (ii) do not apply because Sec. 63.2520(d) specifies the required contents and due date of the notification of compliance status report.**

(1) The requirements of paragraphs (h)(2) through (h)(4)of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided*. **Does not apply. Sec.63.2520(e) specifies reporting requirements for process changes.**

§ 63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information*.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the
State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which

periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) *General recordkeeping requirements*.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

(i)-(ii) **Do not apply. Sec. 63.998(d)(3) and Sec.63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.**

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv)-(v) **Do not apply. Sec. 63.998(d)(3) and Sec.63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.**

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods); **Applies only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.**

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a

continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this sections, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks; **Applies only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.**

` (xi) All adjustments and maintenance performed on CMS; **Applies only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.**

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and **Applies only for the alternative standard in Sec.63.2505**

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) *Recordkeeping requirement for applicability determinations.* If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be

performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems*.
Applies only for the alternative standard in Sec.63.2505
In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)–(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);

(7)-(8) **Do not apply. Recordkeeping requirements are specified in Sec. 63.2525.**

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements*.

(1) Not-withstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests*. Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* **Does not apply. Subpart FFFF does not contain opacity or VE limits**

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) **Does not apply. Sec. 63.2520(e)(4) and (5) specify the SSM reporting requirements.**

(ii) **[Reserved]**

(e) *Additional reporting requirements for sources with continuous monitoring systems* -

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS. **Applies only for the alternative standard, but Sec.63.10(e)(2)(ii) does not apply because the alternative standard does not require COMS.**

(2) Reporting results of continuous monitoring system performance evaluations. **Applies only for the alternative standard, but Sec.63.10(e)(2)(ii) does not apply because the alternative standard does not require COMS.**

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*

Does not apply. Reporting requirements are specified in Sec. 63.2520.

(4) **Does not apply. Subpart FFFF does not contain opacity or VE limits.**

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of record-keeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under § 63.6(i) and § 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device requirements.

(a) *Applicability*. The applicability of this section is set out in Sec. 63.1(a)(4).

(b) Flares.

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max}, as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9 (m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant = 1.740×10^{-7} (1/ppmv)(g-mole/scm)(MJ/kcal); where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946–77 or 90 (Reapproved 1994) (incorporated by reference as specified in § 63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809-95. (incorporated by reference as specified in § 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$$\mathrm{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$$V_{max} = 8.71 + 0.708(H_T)$$

Where:
V_{max} = Maximum permitted velocity, m/sec.
8.71 = Constant.
0.708 = Constant.
H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated as follows:

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director; Air, Pesticides and Toxics Management Division; Atlanta Federal Center, 61 Forsyth Street; Atlanta, GA 30303-3104.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 306, Sections 7.1.1 and 7.4.2.

(3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 63.788, Appendix A.

(5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b)(6).

(6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788, Appendix A.

(7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b)(6).

(8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of Subpart G.

(9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e)(1) of Subpart O.

(11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788, Appendix A.

(12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for § 63.788, Appendix A.

(14) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(15) ASTM D4256-89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(16) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b)(6).

(17) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(18) ASTM E260-91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b)(2) and 63.786(b)(5).

(19) Reserved

(20) Reserved

(21) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.

(24) ASTM D2697-86(1998) (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093-97, Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(26) ASTM D1475-98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for §§ 63.4141(b)(3) and 63.4141(c).

(27) ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide and Oxygen concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process heaters Using Portable Analyzers, IBR approved for Sec. 63.9307(c)(2).

(28) [Reserved]

(29) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§ 63.5799 and 63.5850.

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g)(3)(i)(C) of subpart G of this part.

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for § 63.1251 of subpart GGG of this part.

(d) *State and Local Requirements.* The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program,* January 5, 1999, IBR approved for § 63.99(a)(5)(ii) of subpart E of this part.

(2) New Jersey's *Toxic Catastrophe Prevention Act Program*, (July 20, 1998), Incorporation By Reference approved for § 63.99 (a)(30)(i) of subpart E of this part.

(3) (i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.

(ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a)(8)(i) of subpart E of this part.

(iii) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a)(8)(ii)-(v) of subpart E of this part.

(e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553-6847.

(1) Handbook 44, Specificiations, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e)(3).

(2) [Reserved]

(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at http://www.ncasi.org: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for § 63.457(c)(3)(ii) of subpart S of this part.

(g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia, 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

(1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.

(1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus -- P2O5 or Ca3(PO4)2, Method A-Volumetric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(5) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method A -- Volumetric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(6) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(i) The following materials are available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2900, Fairfield, NJ 07007-2900; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.

(1) ASME standard number QHO-1-1994, ``Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for Sec. 63.1206(c)(6)(iii).

(2) ASME standard number QHO-1a-1996 Addenda to QHO-1-1994, ``Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for Sec. 63.1206(c)(6)(iii).

(3) ANSI/ASME PTC 19.10-1981, ``Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for Sec. Sec. 63.865(b), 63.3360(e)(1)(iii), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), and 63.9323(a)(3).

(j) [Reserved]

(k) The following material may be obtained from U.S. EPA, Office of Solid Waste (5305W), 1200 Pennsylvania Avenue, NW., Washington, DC 20460:

(1) Method 9071B, ``n-Hexane Extractable Material(HEM) for Sludge, Sediment, and Solid Samples," (Revision 2, April 1998) as published in EPA Publication SW-846: ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The incorporation by reference of Method 9071B is approved for Section 63.7824(e) of Subpart FFFFF of this part.

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information*.

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality*.

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

Appendix G: Consent Decree 05-2037JMR/FLN

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

UNITED STATES,	)	
	)	
Plaintiff,	)	
	)	
and the STATES OF ALABAMA, GEORGIA, ILLINOIS, INDIANA, IOWA, MISSOURI, NEBRASKA, NORTH CAROLINA, NORTH DAKOTA, AND OHIO; and the IOWA Counties of LINN and POLK, the OHIO County of MONTGOMERY, and the TENNESSEE County of SHELBY and City of MEMPHIS,	)	
	)	Civil Action Number:
	)	
	)	
Plaintiff-Intervenors,	)	
	)	
v.	)	
	)	
CARGILL, INCORPORATED,	)	
	)	
Defendant.	)	

CONSENT DECREE

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CONSENT DECREE

WHEREAS, Plaintiff, the United States of America (hereinafter "Plaintiff" or "the United States"), on behalf of the United States Environmental Protection Agency (hereinafter "EPA"), has, simultaneously with lodging of this Consent Decree, filed a Complaint alleging that Cargill, Incorporated (hereinafter "Cargill") commenced construction of a major emitting facility and major modifications of a major emitting facility in violation of the New Source Review ("NSR") requirements at Part C and D of the Clean Air Act (the "Act"), 42 U.S.C. §§ 7470-7492 and 7501-7515, and the regulations promulgated thereunder at 40 C.F.R. Parts 52.21 and 51.165 and State Implementation Plan ("SIP") permitting programs for construction and operation of new and modified stationary sources;

WHEREAS, the United States issued Notices of Violation related to VOC emissions for Cargill's Lafayette, Indiana oilseeds facility on May 2, 2002, Cargill's Bloomington, Illinois oilseeds facility on September 9, 2002, and all nine of Cargill's corn processing facilities on August 12, 2003;

WHEREAS, on September 9, 2003, a Notice of Violation related to VOC emissions was issued to Cargill by the Regional Air Pollution Control Agency for violations associated with its failure to comply with State of Ohio and Montgomery County air pollution control provisions related to permit and emissions control requirements for new sources of air contaminants;

WHEREAS, Notices of Violations related primarily to VOC emissions were issued to Cargill by the state of Nebraska on May 23, 2003, the state of Iowa on August 1, 2003, the Iowa county of Linn on August 1, 2003, and a Notice of Inquiry related primarily to VOC emissions

was issued to Cargill by the Memphis-Shelby County Health Department on September 30, 2003;

WHEREAS, the states of Alabama, Georgia, Illinois, Indiana, Iowa, Missouri, Nebraska, North Carolina, North Dakota, and Ohio; the Iowa counties of Linn and Polk, the Ohio county of Montgomery, and the Tennessee county of Shelby and city of Memphis (hereinafter collectively "Plaintiff-Intervenors"), have filed Complaints in Intervention, joining the claims alleged by the United States;

WHEREAS, Cargill does not admit the violations alleged in the Complaints and the NOVs;

WHEREAS, Cargill has worked cooperatively with the United States and the Plaintiff-Intervenors to structure a comprehensive program that will result in the installation of pollution control equipment and enforceable emission reductions of at least 40,000 tons of allowable air pollution annually from 24 Cargill facilities in 13 states;

WHEREAS, the parties agree that many of the emission reductions under the Consent Decree would not otherwise be required by law;

WHEREAS, the United States, the Plaintiff-Intervenors, and Cargill have agreed that settlement of this action is in the best interest of the parties and in the public interest, will result in air quality improvements, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter; and

WHEREAS, the United States, the Plaintiff-Intervenors, and Cargill consent to entry of this Consent Decree without trial of any issues;

NOW, THEREFORE, without any admission of fact or law, and without any admission of the violations alleged in the Complaints or NOVs, it is hereby ORDERED AND DECREED as follows:

I. JURISDICTION AND VENUE

1. The Complaints state a claim upon which relief can be granted against Cargill under Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477, and 28 U.S.C. § 1355. This Court has jurisdiction of the subject matter herein and over the parties consenting hereto pursuant to 28 U.S.C. § 1345 and pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477. Venue is proper under Section 113(b) of the Act, 42 U.S.C. § 7413(b), and under 28 U.S.C. § 1391(b) and (c).

II. APPLICABILITY

2. The provisions of this Consent Decree shall apply to and be binding upon the United States, the Plaintiff-Intervenors, and upon Cargill as well as Cargill's officers, employees, agents, successors and assigns for the facilities listed in Appendix A to this Consent Decree. In the event Cargill proposes to sell or transfer a facility subject to this Consent Decree before termination of the Consent Decree for that facility, it shall advise such proposed purchaser or successor-in-interest in writing of the existence of this Consent Decree, and shall send a copy of such written notification by certified mail, return receipt requested, to the EPA Regional Administrator for the region in which the facility is located and the Plaintiff-Intervenor with jurisdiction over the facility (the "Appropriate Plaintiff-Intervenor") before such sale or transfer, if possible, but no later than the closing date of such sale or transfer. Cargill shall provide a copy of the Consent Decree to the proposed purchaser or successor-in-interest. In the event Cargill

sells or otherwise assigns any of its right, title, or interest in a facility subject to this Consent Decree prior to termination of the Consent Decree for that facility, the conveyance shall not release Cargill from any obligation imposed by this Consent Decree for that facility unless the party to whom the right, title or interest has been transferred agrees in writing to fulfill the obligations of this Consent Decree for that facility.

III. FACTUAL BACKGROUND

3. Cargill is a "person" as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e), and the federal and state regulations promulgated pursuant to the Act, and is a Delaware corporation with corporate headquarters in Minnesota.

4. Cargill owns and/or operates the corn processing and oilseed processing facilities listed in Appendix A.

5. Cargill's corn processing and oilseeds processing facilities produce a number of value-added products including vegetable oil, starch, sweeteners, germ, ethanol, and animal feed. Production of these products results in emissions of regulated air pollutants including nitrogen oxides ("NO_x"), carbon monoxide ("CO"), sulfur dioxide (" SO_2"), particulate matter ("PM"), volatile organic compounds ("VOCs") and hazardous air pollutants ("HAPs").

6. Plaintiffs allege that certain of Cargill's facilities are "major emitting facilities," as defined by Section 169(1) of the Act, 42 U.S.C. § 7479(1), and federal, state and local regulations promulgated pursuant to the Act.

7. Cargill, individually and through its trade association, the Corn Refiners Association, voluntarily disclosed to EPA and affected state and local regulatory agencies the existence of unpermitted VOC emissions at its corn processing facilities.

8. Cargill initiated a process to correct permits for VOC emissions for all nine of its corn processing facilities in June and July 2003. Cargill also met with its state and local agencies for all facilities in July, August and September 2003 regarding the permit applications, VOC emissions and evaluation of VOC emission controls.

9. Cargill's two facilities that produce ethanol received PSD permits in 1995 (Eddyville, Iowa) and 1993 (Blair, Nebraska), and have demonstrated compliance with the Best Available Control Technology ("BACT") VOC limits for ethanol-related emission sources (fermentation vents, rectifier vents, stillage evaporators, tank farms and loadouts) in these permits.

10. Cargill's Lafayette, Indiana oilseed processing facility received a PSD permit in 2001 and complies with BACT VOC limits for the facility in this permit.

11. Cargill voluntarily invested more than $20 million over the past eight years in process unit improvements at its extraction facilities designed to and having the effect of reducing solvent loss and lowering VOC and HAP emissions. These improvements included enhancement of condensation processes at sixteen facilities and installation of vacuum assisted desolventizing systems at Cargill's Bloomington, Illinois and Cedar Rapids West, Iowa facilities.

12. Under the terms of this Consent Decree, Cargill will optimize use of existing solvent recovery systems and commit to enforceable solvent loss rates as specified in this Consent Decree that are consistent with USEPA's most stringent BACT determination for the type of oilseeds processing plant.

13. Cargill worked to develop and voluntarily implemented use of iso-hexane, a non-hazardous air pollutant containing solvent that significantly reduces HAP emissions from extraction processes at many of its extraction facilities.

14. Under the terms of this Consent Decree, Cargill will optimize existing or install new thermal incineration emission control equipment at all feed dryers and carbon furnaces at its corn processing facilities, thereby further reducing VOC and HAP emissions from these units.

IV. COMPLIANCE PROGRAM

Program Summary. As set forth in this Part, Cargill shall implement a program of enforceable emissions reductions of SO_2, CO, NO_x, and VOCs from its corn processing and oilseeds processing plants listed in Appendix A by at least 40,000 tons per year. This includes approximate reductions of SO_2 of 15,000 tons per year, CO of 16,000 tons per year, NO_x of 2,500 tons per year, and VOC of 6,500-11,500 tons per year. Cargill shall accomplish the emission reductions through the installation of pollution control technologies and implementation of emission reduction projects in accordance with the schedules set forth in this Consent Decree. Where required, Cargill shall propose new emission limits, and submit permit applications to the applicable permitting authority to incorporate the new limits into federally-enforceable permits for the facility, and shall demonstrate compliance at all times with applicable limits through performance tests, continuous emission or operating parameter monitoring, and recordkeeping.

A. INSTALLATION OF CONTROLS AND APPLICABLE EMISSION LIMITS

Cargill shall implement the following Emission Control Plans:

15. Boiler SO_2 Emission Cap. The Plaintiff and Appropriate Plaintiff-Intervenors have reviewed Cargill's responses to Plaintiff's Clean Air Act Section 114 information request regarding the construction, modification, operation and emissions history of Cargill's coal-fired boilers, listed in Appendix B. Based on their review of the information available to Plaintiff and Plaintiff-Intervenors, the Plaintiff and Appropriate Plaintiff-Intervenors have not identified

liability for Cargill for failing to comply with New Source Review and/or Prevention of Significant Deterioration requirements for these sources.

Cargill will submit permit applications to the applicable permitting authority within three years from entry of this Consent Decree that will contain annual SO_2 emission limits for the facilities and boilers listed in Appendix B that, in aggregate, limit total annual SO_2 emissions to less than 15,355 tons per year based on a 12-month rolling sum. This represents a reduction of 15,067 tons of SO_2 per year from the current allowable emissions from these sources of 30,422 tons per year. To accommodate environmentally beneficial fuel switches to lower sulfur coal, these facilities are authorized to make changes to the coal boiler that maintain the heat input capacity of the coal boiler (including changes to coal boiler fuel receiving and handling systems and ash handling systems) that do not result in an increase in any single pollutant's emissions above current boiler allowable emission rates or an increase in the heat input to the boiler and result in an overall decrease in emissions.

16. Additional SO_2 Emission Reduction Commitment. Cargill will submit a permit application to the applicable permitting authority within three years from entry of this Consent Decree that will include individual emission limits for the Cedar Rapids (PC Boiler – 72-CB), Memphis (PC Boiler – 8301) and Decatur (Stoker Boiler – S407) coal boilers that in aggregate will not exceed a capacity weighted average $S0_2$ emission rate of 1.2 lb/MMBtu. This represents a greater than 44 percent reduction in the pound per million BTU emission rate of SO_2 from the 2003 capacity weighted baseline pound per million BTU emission rate for these boilers of 2.16 lb/MMBtu and a greater than 60 percent reduction from the weighted allowable pound per million BTU emission rate of 3.1 lb/MMBtu.

17. Boiler CO Emission Control Plan. Cargill will undertake and complete the CO emissions reduction and combustion optimization project described in Appendix C within five years from entry of this Consent Decree. After completion of the emissions reduction and combustion optimization project and within five years from entry of this Consent Decree, Cargill shall propose a new CO limit to the applicable permitting authority for the Eddyville coal boilers (EU 1.001, 1.002 and 1.039) of 4,374 tons per year based on a 12-month rolling sum. This represents a reduction of 10,080 tons of CO per year from the current BACT allowable emissions from these boilers of 14,454 tons per year. After completion of the emission reduction and combustion optimization project and within five years from entry of the Consent Decree, to the extent Cargill is unable to achieve the limit of 4,374 tons of CO per year, which is based on a vendor performance guarantee, Cargill shall submit to the applicable permitting authority an alternative CO limit based on the demonstrated operation of boilers following completion of the emission reduction project. By letter of June 14, 2005, IDNR expressly approves this emission reduction and combustion optimization project as a pollution control project (to the extent provided by law) that is exempt from New Source Review requirements and EPA does not object to IDNR's determination.

18. Boiler NO_x Emission Control Plan. Within the schedule set forth in Appendix D, Cargill will submit permit applications to the applicable permitting authority that will limit NO_x emissions from the units listed in Appendix D to the emission limits specified in Appendix D through the installation of controls, acceptance of enforceable operating limits and retirement of sources. This represents a reduction of at least 2,500 tons of NO_x per year from the current allowable emissions from these sources.

19. Extraction VOC Emission Control Plan for Soybean Processing Plants. Cargill will submit permit applications within three years from entry of this Consent Decree that will propose a final VOC solvent loss limit (hereinafter, also referred to as "solvent loss ratio limit" or "SLR limit") for each conventional soybean oilseed processing facility listed in Appendix E that in aggregate will not exceed a capacity weighted average of 0.175 gallon of VOC solvent loss per ton of oilseed processed (gallon/ton) based on a 12-month rolling average. Beginning three years from the date of entry of the Consent Decree, Cargill shall begin to account for solvent loss and quantity of oilseeds processed to comply with the proposed final solvent loss limit. For each soybean processing plant, the first compliance determination will be based on the first twelve operating months of data collected after the third year from entry of the Consent Decree. For any plant that has an existing permit limit lower than the applicable solvent loss factor ("SLF") in 40 C.F.R. Part 63, Subpart GGGG, Cargill may not propose a final solvent loss ratio limit that is less stringent than either the existing permit limit or the Solvent Extraction for Vegetable Oil Production NESHAP limit. Capacity weighted averages shall be based on the capacities for each facility as listed in Appendix E. If the design capacity for any plant listed in Appendix E changes anytime within three years from entry of this Consent Decree, Cargill will notify the Plaintiff and the Appropriate Plaintiff-Intervenors as part of the next semi-annual report required under Paragraph 36 submitted after such change occurs. Compliance with the capacity weighted average solvent loss limit shall be demonstrated using the compliance demonstration formula in Appendix E.

20. Extraction VOC Emission Control Plan for Corn Germ and Sunflower Processing Plants. Cargill will submit permit applications within three years from entry of this Consent

Decree that will propose a final VOC solvent loss ratio limit for each corn germ and sunflower processing facility listed in Appendix F that in aggregate will not exceed a capacity weighted average of 0.30 gallon/ton based on a 12-month rolling average. Beginning three years from the date of entry of the Consent Decree, Cargill shall begin to account for solvent loss and quantity of oilseeds processed to comply with the proposed final solvent loss limit. For each corn germ and sunflower processing plant, the first compliance determination will be based on the first twelve operating months of data collected after the third year from entry of the Consent Decree. For any plant that has an existing permit limit lower than the applicable solvent loss factor ("SLF") in 40 C.F.R. Part 63, Subpart GGGG, Cargill may not propose a final VOC SLR limit that is less stringent than either the existing permit limit or the Solvent Extraction for Vegetable Oil Production NESHAP limit. Capacity weighted averages shall be based on the capacities for each facility as listed in Appendix F. If the design capacity for any plant listed in Appendix F changes anytime within three years from entry of this Consent Decree, Cargill will notify the Plaintiff and the Appropriate Plaintiff-Intervenors as part of the next semi-annual report required under Paragraph 36 submitted after such change occurs. Compliance with the capacity weighted average solvent loss limit shall be demonstrated using the compliance demonstration formula in Appendix F.

21. Extraction VOC Emission Control Plan for Specialty Processing Plants. Cargill will submit permit applications within three years from entry of this Consent Decree that will limit total solvent loss from the oilseed specialty facilities listed in Appendix G to the gallon/ton final VOC solvent loss ratio limits established in Appendix G for each facility based on a 12-month rolling average. Beginning three years from the date of entry of the Consent Decree,

Cargill shall begin to account for solvent loss and quantity of oilseeds processed to comply with the gallon/ton solvent loss limits established in Appendix G for each facility on a twelve month rolling average. For each specialty processing plant, the first compliance determination will be based on the first twelve operating months of data collected after the third year from entry of the Consent Decree.

22. Interim Solvent Loss Ratios. Beginning 90 days after lodging of this Consent Decree, Cargill will demonstrate compliance with the applicable solvent loss ratio for one facility included in Appendix G (Extraction VOC Emission Control Plan – Specialty Plants). Beginning 12 months after one year from entry of this Consent Decree, Cargill will meet for a minimum of five extraction facilities (listed on Appendices E and F) a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average. Beginning 12 months after two years from entry of this Consent Decree, Cargill will meet for a minimum of ten extraction facilities (listed on Appendices E and F) a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average.

23. Corn Processing VOC Emission Control Plan for Process VOC Sources. Cargill, through the installation of pollution control technologies and implementation of emission reduction projects (including emission unit elimination and heat recovery) will meet the level of control specified for the emission units included in Appendix H within the schedule established in Appendix H. Thermal oxidizers installed after lodging and according to the requirements of

this Consent Decree on emission units included in Appendix H located in ozone non-attainment areas (Dayton, Hammond, Memphis), will be designed to achieve at least 98 percent control of VOC emissions and will meet the level of control specified in Appendix H within the schedule established in Appendix H. Within five years from lodging of this Consent Decree, Cargill shall submit permit applications to the applicable permitting authority to incorporate the new VOC limits for emission units in Appendix H into federally enforceable permits for the facilities.

24. Corn Processing VOC Emission Control Plan for Integrated Feed/Bran Drying Systems. For integrated feed/bran drying systems listed in Appendix I, Cargill will optimize existing pollution control equipment (thermal oxidizers and scrubbers) and implement emission reduction projects (including emission unit elimination and heat recovery) to meet pollution control equipment operating parameters set forth in Appendix I or eliminate the emission unit within three years from lodging of this Consent Decree. Also within three years from lodging of this Consent Decree, Cargill will test and establish an allowable short-term VOC emission limit at the outlet of each scrubber stack, as set forth in Appendix I, for each integrated feed/bran drying system. Within five years from lodging of this Consent Decree, Cargill shall submit permit applications to the applicable permitting authority to incorporate the pollution control equipment operating parameters and allowable short-term VOC emission limits for integrated feed/bran drying systems listed in and established pursuant to Appendix I into federally enforceable permits.

25. Corn Processing VOC Emission Control Plan – Dayton Facility. Within five years from lodging of this Consent Decree, Cargill will submit a permit to install application ("PTI") to the Regional Air Pollution Control Agency in Dayton, Ohio that will limit process

source VOC and boiler NO_x emissions from the group of sources listed in Appendix J (Dayton, Ohio Corn Processing Ozone Cap) to less than 854 tons per year based on a 12-month rolling sum. The 854 ton per year ozone cap reflects enforceable NO_x emissions offsets of 404 tons per year for the three boiler emissions units in Appendix J and 98 percent VOC control for the process units identified in Appendix J. The PTI application shall also propose to install new thermal incineration emission control technology designed to achieve VOC destruction efficiency of not less than 98 percent to minimize VOC emissions for the process operations identified in Appendix H as emissions units P031, P052, P057, P072 and P088. The PTI application shall also propose to optimize the control devices listed in Appendix I to meet the equipment design and operational parameters established in Appendix I to minimize VOC emissions from the integrated feed/bran drying system identified as emissions units P032, P033, P034, P037, P040, and P058. Pursuant to the emission test procedures and schedule specified in Appendix J, allowable short-term VOC emission rates shall be established for the process VOC emission units identified in Appendix J. Such allowable short-term VOC emission rates shall be proposed as part of the PTI application. Compliance with the facility ozone cap and short term VOC emission limits established pursuant to this paragraph and Appendix J satisfies the requirement to meet the Lowest Achievable Emission Rate of 98 percent. The PTI application shall also propose to install low-NO_x burner control technology for the two boilers identified in Appendix J as B004 and B006. The low-NO_x burner control technology shall result in the short-term and annual emissions rates of NO_x specified in Appendix D. Within one year of issuance of the Permit to Install, Cargill shall submit an application to incorporate the provisions of the PTI into the Title V operating permit.

Within one year from lodging of this Consent Decree, Cargill shall complete, and submit to RAPCA, an odor control optimization analysis report. The report shall include identification/speciation of potentially odorous volatile organic compounds expected to be emitted from emission units located at Cargill's Dayton, Ohio corn processing facility and subject to VOC control under Appendix H of this Consent Decree. Identification/speciation of potentially odorous compounds shall be based on review of past emissions testing and analysis at Cargill's facilities, third-party expert consultation, and reasonable review of available literature and information. The odor control optimization analysis report also shall include analysis and recommendations by a third-party expert regarding how controls mandated by the Consent Decree may be operated in a manner to reduce odor to the maximum extent practicable. Specifically, the report shall evaluate and provide recommendations regarding thermal oxidizer residence time between 0.5 and 1.0 second, thermal oxidizer operating temperature between 1200 degrees F and 1500 degrees F, and zero-hearth furnace operating temperatures between 1200 degrees F and 1500 degrees F. In making these recommendations, the third-party expert shall consider effectiveness on odor control, economic feasibility, and the potential for collateral emissions increases. In any permit applications required under this Consent Decree, for the emission units subject to VOC control under Appendix H of this Consent Decree, Cargill shall propose the operating parameters recommended by the third-party expert in the odor control optimization analysis report. Compliance with the operating parameters established pursuant to this paragraph and Appendix I shall be sufficient for purposes of compliance with Ohio Administrative Code Rule 3745-15-07(A).

26. Corn Processing Process Source CO Emission Control Plan. Cargill, through the installation of pollution control technologies and implementation of emission reduction projects (including emission unit elimination and heat recovery) will meet the level of control specified for the sources included in Appendix K within the schedule established in Appendix K. Within five years from lodging of this Consent Decree, Cargill shall submit permit applications to the applicable permitting authority to incorporate the new CO limits for sources in Appendix K into federally enforceable permits for the facilities.

27. Hammond Process Source SO_2 Emission Control Plan. Cargill, through installation of pollution control technologies and implementation of emission reductions projects (including emission unit elimination) will meet the level of control specified for the sources included in Appendix L within three years from entry of this Consent Decree. Also within three years from entry of this Consent Decree, Cargill will submit to IDEM a formal request to amend Rule 326 IAC 7-4-1.1 to incorporate the new SO2 emission limits for sources in Appendix L into this Rule.

28. Installation of air pollution control equipment and emission reduction projects undertaken pursuant to the emission control plans under Paragraphs 15-27 are intended to abate or control atmospheric pollution or contamination by removing, reducing, or preventing the emission of pollutants, and as such, are environmentally beneficial projects and are pollution control projects to the extent provided by law.

29. Additional Federal Requirements. Upon entry of this Consent Decree, for all facilities included in Appendix A, Cargill shall identify and implement applicable New Source Performance Standards ("NSPS") requirements codified at 40 C.F.R. Part 60. The following

NSPS may apply: Subparts D, Db and Dc (certain steam generating units), DD (certain grain elevators), Kb (certain organic liquid storage tanks), GG (certain stationary gas turbines) VV (certain synthetic organic chemical manufacturing equipment) and Y (certain coal preparation plants). Within 12 months from the date of entry of this Consent Decree, Cargill shall file an amended Toxics Release Inventory form (Form R) for the corn processing facilities listed in Appendix A to include all identified chemicals. Within 90 days from the date of entry of this Consent Decree, Cargill shall comply with any notification and reporting requirements under CERCLA Section 304, 42 U.S.C. § 11004.

B. DEMONSTRATION OF COMPLIANCE

30. Cargill shall demonstrate compliance with the requirements of Paragraphs 15-29 through the use of performance testing, continuous emission monitoring, parametric monitoring, recordkeeping and reporting, as set forth below:

a. Coal Boiler SO_2 Emission Reductions. Cargill shall demonstrate compliance with the aggregate 12-month rolling sum of 15,355 tons of SO_2 per year for coal boilers listed in Appendix B beginning 12 months after the third year from entry of the Consent Decree by compliance with the 12-month rolling sum limits established in individual permits pursuant to Paragraph 15. Monitoring of emissions will be as provided in Appendix B (Boiler SO_2 Emission Control Plan). Cargill shall demonstrate that the individual facility permit limits comply with the combined SO_2 capacity weighted average of 1.2 lb/MMBtu established pursuant to Paragraph 16 (Additional SO_2 Emission Reduction Commitment) using the compliance formula set forth in Appendix B, note 2. Where coal boiler exhaust is commingled with exhaust from other sources,

compliance with this limit will be based on emissions from only the coal boilers, provided that Cargill can accurately quantify the coal boiler emissions. Cargill shall monitor emissions as provided in Appendix B (Boiler SO_2 Emission Control Plan).

b. Boiler CO Emission Reductions. Cargill shall demonstrate compliance with the 12-month rolling sum of 4,374 tons of CO per year, or the alternative limit proposed under Paragraph 17, from the Eddyville coal boilers (EU 1.001, 1.002 and 1.039) beginning 12 months after the fifth year from entry of the Consent Decree. Cargill shall monitor emissions as provided in Appendix C (Boiler CO Emission Control Plan).

c. Boiler NO_x Emission Reductions. Within the schedule set forth in Appendix D (Boiler NO_x Emission Control Plan), Cargill shall demonstrate compliance with coal and gas boiler NO_x emission limits established pursuant to Appendix D. Cargill shall monitor emissions as provided in Appendix D, and shall conduct performance testing as provided in Appendix M (Performance Testing Plan).

d. Extraction VOC Emissions Reductions. Beginning 12 months after the first year from entry of this Consent Decree, Cargill will demonstrate at a minimum of five extraction facilities (listed on Appendices E and F) compliance with a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average. Beginning 12 months after the second year from entry of this Consent Decree, Cargill will demonstrate at a minimum of ten extraction facilities compliance with a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected

corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average. Beginning 12 months after the third year from entry of the Consent Decree, Cargill will demonstrate compliance with applicable solvent loss ratios for all facilities included under Appendices E (Oilseeds Extraction VOC Emission Control Plan—Soybean Processing Plants), F (Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants) and G (Extraction VOC Emission Control Plan—Specialty Processing Plants).

Compliance with the solvent loss ratio limits established pursuant to Paragraphs 19-22 shall be calculated on a monthly basis and determined in accordance with 40 C.F.R. Part 63, Subpart GGGG, with the following exceptions: (1) provisions pertaining to HAP content shall not apply; (2) solvent losses and quantities of oilseeds processed during startup and shutdown periods shall not be excluded in determining solvent losses; and (3) records shall be kept in the form of the table in Attachment N (Extraction Solvent Loss Recordkeeping Template), that show total solvent losses, solvent losses during malfunction periods, and adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve month rolling average basis. Cargill may apply the provisions of 40 C.F.R. Part 63, Subpart GGGG pertaining to malfunction periods only when: (i) the malfunction results in a shutdown of the solvent extraction system; and (ii) cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a 12-month rolling period.

e. Corn Processing VOC Emission Reductions.

i. Process VOC Sources. As stated in Paragraph 23, within the schedule established in Appendix H (Corn Processing VOC Emission Control Plan), Cargill will meet the level of control specified for the sources included in Appendix H. Cargill will monitor controls and emissions as provided in Appendix H and will conduct performance testing as provided in Appendix M (Performance Testing Plan) and, where applicable, Appendix O (Carbon Furnace Test Protocol).

ii. Integrated Feed/Bran Drying Systems. As stated in Paragraph 24, within three years from lodging of the Consent Decree, Cargill will monitor and demonstrate compliance with control equipment operating parameters established under Appendix I as set forth under Appendix I. Also, within three years from lodging of the Consent Decree, Cargill will monitor control equipment and conduct testing as provided in Appendices I and M (Performance Testing Plan).

iii. Dayton Corn Processing Ozone Cap. As stated in Paragraph 25, Cargill will demonstrate compliance with the Dayton Corn Processing Ozone Cap, which reflects enforceable NOx emissions offsets of 404 tons per year for the three boiler emission units in Appendix J and 98 percent VOC control for the process units identified in Appendix J, via the emission tracking mechanism provided in Appendix J. Such VOC and NO_x emission tracking shall begin the fifth year from lodging of the Consent Decree. Cargill shall demonstrate compliance with the 12-month rolling sum ozone cap of 854 tons for the process

source VOC and boiler NO_x emission sources listed in Appendix J during the first 11 months following the fifth year from lodging of the Consent Decree as per the schedule in Appendix J. Cargill will track VOC and NO_x emissions as provided in Appendix J (Dayton, Ohio Corn Processing Ozone Cap). NO_x emissions will be continuously monitored as provided in Appendices D (Boiler NO_x Emission Control Plan) and J (Dayton, Ohio Corn Processing Ozone Cap). To monitor VOC emissions, Cargill will develop and utilize VOC emission factors via performance testing as provided in Appendices J (Dayton, Ohio Corn Processing Ozone Cap) and M (Performance Testing Plan).

iv. Dayton, Ohio Odor Control Optimization Analysis. Within one year from lodging of this Consent Decree, Cargill shall complete, and submit to RAPCA, an odor control optimization analysis report for emission units subject to VOC control under Appendix H as required under Paragraph 25. Within five years from the date of lodging of this Consent Decree, Cargill shall implement the odor report recommendations for the emission units subject to VOC control under Appendix H.

v. Hammond, Indiana RACT Plan. Within five years from the date of lodging of this Consent Decree, Cargill shall submit the emission limits established pursuant to Paragraphs 23 and 24 and Appendices H and I as an amendment to the Hammond, Indiana facility's RACT plan; IDEM shall incorporate the emission limits into the RACT plan.

f. Corn Processing Process Source CO Emission Reductions. As stated in Paragraph 26, within the schedule established in Appendix K, Cargill will meet the level of control specified for the sources included in Appendix K (Corn Processing Process CO Emission Control Plan). Controls and emissions will be monitored as provided in Appendix K and performance testing will occur as provided in Appendix M (Performance Testing Plan) and, where applicable, Appendix O (Carbon Furnace Test Protocol).

g. Hammond Process Source SO_2 Emission Reductions. As stated in Paragraph 27, within three years from entry of this Consent Decree, Cargill will meet the level of control specified for the sources included in Appendix L (Hammond Process Source SO_2 Emission Control Plan). Controls and emissions will be monitored as provided in Appendix L and performance testing will occur as provided in Appendix M (Performance Testing Plan).

31. Continuous Emission Monitors Use and Certification. For all new Continuous Emission Monitors ("CEMs") installed after entry and pursuant to this Consent Decree, Cargill shall install, calibrate and certify the CEMs and begin to continuously monitor emissions sufficient to meet the compliance schedules specified in Paragraph 30 and related appendices. Cargill shall thereafter continuously maintain and operate each CEM as specified in Appendices B-D.

32. Source Testing. Cargill shall conduct source testing to evaluate compliance with applicable requirements of this Consent Decree, as required under Appendix M. For each performance test that determines initial compliance or demonstration of emission limits with requirements under Appendices H and I, the performance test shall be conducted in accordance

with a protocol approved by Plaintiff and Appropriate Plaintiff-Intervenors. Testing for compliance or demonstration of emission limits for all other instances shall be conducted in accordance with a protocol approved by the Appropriate Plaintiff-Intervenors. During the source testing, all emission units shall be operated at maximum representative operating conditions. During the source testing, Cargill shall monitor, at a minimum, the operating parameters specified by Appendices B-L.

33. Initial Emissions Report. No later than 60 days after the completion of the source testing required pursuant to this Consent Decree, Cargill shall submit an Initial Emissions Report to the Plaintiff and Appropriate Plaintiff-Intervenors. This report shall include, where applicable, the source test report or a summary of emission monitoring data; Cargill's proposed emission limit as required by the emission control plans under Paragraphs 15-27; and the operating parameter(s) ranges or limits that Cargill proposes to monitor for compliance demonstration as required under this Consent Decree or Appendices B-L.

34. Proposed and Final Emission Limits. The Plaintiff and Appropriate Plaintiff-Intervenor shall set the final emission limit, and operating parameter ranges or limits, as appropriate and consistent with the provisions of this Consent Decree, taking into consideration Cargill's Initial Emissions Report under Paragraph 33, process variability, test methodology, a reasonable certainty of compliance and any other information pertinent to the specific emission unit. Cargill shall comply with the proposed emission limit immediately following submission of the Initial Report and shall comply with the Final Limit no later than 60 days following Cargill's receipt of notice from the Plaintiff and Appropriate Plaintiff-Intervenors regarding the Final Limit.

C. RECORDKEEPING AND REPORTING REQUIREMENTS

35. Data Retention. Cargill shall conduct monitoring as required by the Emission Control Plans and Paragraphs 30(a)-30(g), and shall maintain records of this monitoring data in accordance with the record retention requirements set forth in Paragraph 37.

36. Semi-annual Reports. Cargill shall submit semi-annual written reports to the Plaintiff and Plaintiff-Intervenors that describe Emission Control Plan requirements, the applicable deadlines and the dates the tasks were completed. Each report shall also contain i) any deviations from emission limitations, operational restrictions, performance testing requirements and control device operating parameter limitations, including deviations resulting from malfunctions, that have been detected by the testing, monitoring, and recordkeeping requirements specified in this Consent Decree; ii) the probable cause of such deviations; and iii) any corrective actions or preventive measures taken. If no deviations occurred during a reporting period, Cargill shall submit a written report which states that no deviations occurred. Each report shall be due within thirty days after the end of each semi-annual reporting period (January 1 through June 30, or July 1 through December 31, as applicable, except the first report where the reporting period is from the date of lodging of this Consent Decree through December 31, 2005). Reports shall be submitted as set forth in Paragraph 84 (Notice and Penalty Payment). Emissions data may be submitted in electronic format unless otherwise requested by the Appropriate Plaintiff-Intervenor.

37. Cargill shall retain records required by Paragraphs 15-30 of this Consent Decree for a period of five years unless other state or local regulations require the records to be maintained longer.

38. Cargill's semi-annual reports shall contain the following certification and may be signed by the company employees responsible for corn and oilseed processing environmental management and compliance:

> "I certify under penalty of law that I have personally examined the information submitted herein and that I have made a diligent inquiry of those individuals immediately responsible for obtaining the information and that to the best of my knowledge and belief, the information submitted herewith is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

D. PERMITTING

39. Within the schedules specified in Paragraphs 15-27 of the Consent Decree, Cargill shall apply for modification of its federally-enforceable construction and/or operating permits to incorporate the specific emission reduction requirements, emission limits, operating parameters, performance testing requirements, monitoring requirements and recordkeeping requirements specified under Paragraphs 15-27. It is the intent of the parties that the requirements under Paragraphs 15-27 and associated appendices survive termination of this Consent Decree and are deemed "applicable requirements" under Title V of the Clean Air Act and state and local operating permit programs that implement the requirements of Title V. EPA, states and local agencies agree to propose as permit conditions, and may propose as revisions to their SIPs, the specific emission limits, operating parameters, monitoring requirements and recordkeeping requirements set forth under Paragraphs 15-27 and associated appendices, and as proposed by Cargill under Paragraphs 15-27 so long as Cargill's proposal is consistent with Consent Decree emission reduction requirements. Cargill agrees not to contest any such permit conditions or SIP revisions. For emission reduction projects necessary to meet the requirements of Paragraphs 15-

28 and 30 of this Consent Decree, Cargill, as necessary, shall apply for modification of its federally-enforceable operating permits to incorporate revised emission limits for any collateral emissions increases resulting from implementation of such emission reduction projects within the schedules specified in Paragraphs 15-28 of the Consent Decree for permitting of such projects. For units and pollutants not addressed by the emission reduction programs under Paragraphs 15-27 of this Consent Decree, Cargill shall have a period of 3 years from the date of lodging of the Consent Decree to apply for a permit or permit amendment to impose or modify the VOC, HAP or CO emission limits for the sources included in Appendix A. Prior to issuance of revised construction and/or operating permits that incorporate Consent Decree requirements, Cargill shall operate all units identified in Paragraphs 15-28 of this Consent Decree and associated appendices in accordance with the provisions of Paragraphs 15-28 and 30 of this Consent Decree and associated appendices.

V. CIVIL PENALTY

40. Within thirty (30) calendar days of entry of this Consent Decree, Cargill shall pay to the United States and Plaintiff-Intervenors a total civil penalty pursuant to Section 113 of the Act, 42 U.S.C. § 7413 in the amount of $1,600,000. The Plaintiffs agree that to the extent the emission reduction projects required in this Consent Decree result in emission reductions not otherwise required by law, they have been considered environmentally beneficial projects for civil penalty mitigation.

41. Of the total civil penalty, $830,769 shall be paid to the United States by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing the USAO File Number and DOJ Case Number, and

the civil action case name and case number. The costs of such EFT shall be Cargill's responsibility. Payment shall be made in accordance with instructions provided to Cargill by the Financial Litigation Unit of the U.S. Attorney's Office. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. Cargill shall provide notice of payment, referencing the USAO File Number and DOJ Case Number, and the civil action case name and case number, to the Department of Justice and to EPA, as provided in Paragraph 84 (Notice and Penalty Payment).

42. Of the total civil penalty, $769,231 shall be divided among the state and local air authorities that have filed Complaints in Intervention and joined the claims alleged by the United States in this action. Cargill shall make payment as follows:

a) $61,538 to the State of Alabama;

b) $30,769 to the State of Georgia;

c) $30,769 to the State of Illinois;

d) $61,538 to the State of Indiana;

e) $123,082 to the State of Iowa;

f) $92,307 to Linn County, Iowa;

g) $30,769 to Polk County, Iowa;

h) $30,769 to the State of Missouri;

i) $61,538 to the State of Nebraska;

j) $61,538 to the State of North Carolina;

k) $61,538 to the State of North Dakota;

l) $30,769 to the State of Ohio;

m) $30,769 to Montgomery County, Ohio; and

n) $61,538 to the City of Memphis and Shelby County, Tennessee.

Payment shall be made as provided in Paragraph 84 (Notice and Penalty Payment).

43. Upon entry of this Consent Decree, this Consent Decree shall constitute an enforceable judgment for purposes of post-judgment collection in accordance with Rule 69 of the Federal Rules of Civil Procedure, the Federal Debt Collection Procedure Act, 28 U.S.C. § 3001-3308, and other applicable federal authority. The Plaintiff shall be deemed a judgment creditor for purposes of collection of any unpaid amounts of the civil and stipulated penalties and interest.

44. No amount of the total civil penalty of $1,600,000 to be paid by Cargill shall be used to reduce its federal or state tax obligations.

45. Supplemental Environmental Projects. By no later than five years from entry of this Consent Decree, Cargill shall complete implementation of the Supplemental Environmental Projects ("SEPs") identified in Appendix P (Supplemental Environmental Projects) (hereinafter, "Appendix P SEPs") at an aggregate cost of at least $3,000,000, in accordance with the requirements of Paragraphs 46-48.

46. Within one year from entry of this Consent Decree, Cargill shall provide Plaintiff and Plaintiff-Intervenors with a work plan that provides the proposed schedule for commencing and completing construction of the Appendix P SEPs. The work plan submitted under this paragraph is incorporated by reference herein and made directly enforceable under the Consent Decree.

47. Semi-annual reports, as required under Paragraph 36, shall include a description of work undertaken to implement the Appendix P SEPs and an accounting of all costs incurred in implementing the Appendix P SEPs. Cargill shall provide, upon request, copies of invoices, receipts, purchase orders or other documentation of costs incurred to implement the Appendix P SEPs.

48. Within five years from entry of this Consent Decree, Cargill shall provide an Appendix P SEP completion report to Plaintiffs that documents the dates each project was completed, results of implementing the project (including energy and emission reductions), and project dollars expended by Cargill in implementing the projects.

49. Community-Based Supplemental Environmental Projects. By no later than five years from entry of this Consent Decree, Cargill shall complete implementation of the Community-Based SEPs identified below at an aggregate cost of at least $500,000:

a. Mid-South Clean Air Coalition Diesel Retrofit program in Shelby County, TN;

b. Eddyville Dunes and Wetland Restoration Project in Eddyville, IA;

c. Cedar Rapids, IA Indian Creek Nature Center Wetlands Restoration Project;

d. Nebraska-Missouri River Wetland Reserve Enhancement Program; and

e. Such additional or alternative Community-Based SEPs as Cargill may propose, subject to Plaintiff's approval.

The implementation of the Community-Based SEPs shall be deemed complete upon Cargill's expenditure of at least $500,000 in accordance with the work plan approved pursuant to Paragraph 50.

50. Within one year from entry of this Consent Decree, Cargill shall provide to Plaintiff and Plaintiff-Intervenors, for review and approval, a detailed work plan that provides the proposed schedule for commencing and completing the Community-Based SEPs identified above, as well as describing the nature, scope and goals of the projects, and where they are to be implemented. Cargill, subject to Plaintiff's approval, may propose an alternative or additional Community-Based SEP. Cargill's Community-Based SEP work plans shall be approved by the Plaintiff and Appropriate Plaintiff-Intervenors provided they conform to the requirements of EPA's Supplemental Environmental Projects Policy (eff. May 1, 1998).

51. Community-Based SEP Completion Report. For the Community-Based SEPs completed under this Section during a particular semiannual period, Cargill shall provide, as part of the semiannual report for that period, a Community-Based SEP Completion Report certified in accordance with Paragraph 38 of this Consent Decree and containing the following information:

a. A detailed description of the Community-Based SEP as implemented;

b. A description of any pre-report implementation problems encountered and the solutions thereto;

c. An accounting of all costs incurred by Cargill for the purpose of implementing the Community-Based SEP. Cargill shall provide, upon request, copies of the invoices, receipts, purchase orders, or other documentation that specifically identifies and itemizes the individual cost

or the goods and/or services for which payment is being made. Canceled drafts do not constitute acceptable documentation unless such drafts specifically identify and itemize the individual costs of the goods and/or services for which payment is being made; and

d. A certification that the Community-Based SEP has been satisfactorily completed which is signed by the company employees responsible for corn and oilseed processing environmental management and compliance.

52. Acceptance of Community-Based SEP Completion Report. After receipt of the Community-Based SEP Completion Report described in Paragraph 51 above, the Plaintiff and Appropriate Plaintiff-Intervenors will notify Cargill, in writing, regarding: (a) any deficiencies in the Community-Based SEP Completion Report along with a grant of an additional thirty (30) days for Cargill to correct any deficiencies; or (b) indicate that the Plaintiff and Appropriate Plaintiff-Intervenors conclude that the project has been completed satisfactorily; or (c) determine that the project has not been completed satisfactorily and seek stipulated penalties in accordance with Paragraph 57 herein.

53. If the Plaintiff and Appropriate Plaintiff-Intervenors elect to exercise option (a) above, i.e., if the Community-Based SEP Completion Report is determined to be deficient but Plaintiffs and Appropriate Plaintiff-Intervenors have not yet made a final determination about the adequacy of Community-Based SEP completion itself, Cargill shall have the opportunity to object in writing to the notification of deficiency given pursuant to this paragraph within ten (10) days of receipt of such notification. The Plaintiffs and Appropriate Plaintiff-Intervenors and Cargill shall have an additional thirty (30) days from the receipt of the Plaintiffs and Appropriate

Plaintiff-Intervenors notification of objection to reach agreement on changes necessary to the Community-Based SEP Completion Report. If agreement cannot be reached on any such issue within this thirty (30) day period, the Plaintiff and Appropriate Plaintiff-Intervenors shall provide a written statement of their decision on the adequacy of the completion of the Community-Based SEP to Cargill.

54. If for any reason Cargill expends less than the full amount in Paragraphs 45 (Appendix P SEPs) or 49 (Community-Based SEPs), Cargill shall pay the balance of the unexpended funds in accordance with the payment requirements set forth in Paragraph 41, within thirty (30) days of receipt of written notification of the unexpended funds from the United States.

55. In any public statement regarding the funding of Appendix P SEPs or Community-Based SEPs implemented under this Consent Decree, Cargill shall clearly indicate that these projects are being undertaken as part of the settlement of an enforcement action for alleged environmental violations. Cargill shall not be able to use or rely on any emissions reductions generated as a result of its performance of the Appendix P SEPs or Community-Based SEPs in any federal or state emission averaging, banking, trading or netting program.

56. These Paragraphs 45-55 shall not relieve Cargill of its obligation to comply with all applicable provisions of federal, state or local law during the implementation of the Appendix P SEPs or Community-Based SEPs, nor shall they be construed to be a ruling on, or determination of, any issue related to any federal, state or local permit, nor shall they be construed to constitute Plaintiffs approval of the equipment or technology installed by Cargill in connection with the Appendix P SEPs or Community-Based SEPs undertaken pursuant to this Consent Decree.

VI. STIPULATED PENALTIES

57. Cargill shall pay stipulated penalties in the amounts set forth below to the Plaintiff for violations of the Consent Decree. When a violation of the Consent Decree is at a specific facility, Cargill shall divide the stipulated penalty set forth below equally among the Plaintiff and the Appropriate Plaintiff-Intervenors for the following:

a. For failure to comply with a proposed emission limit under Paragraphs 15-29 (other than, for proposed emission limits under Paragraphs 23-26, startup, shutdown or malfunction events as defined in 40 C.F.R. Part 63), per day, per unit:

For one through three days per calendar month - $1,500
For four through ten days per calendar month - $2,500
For greater than 10 days per calendar month - $5,000

b. For failure to monitor operating parameters for pollution control equipment established under Paragraphs 15-29, per day, per calendar quarter, per device not monitored:

For four to ten days per calendar quarter - $1,500
For eleven through twenty days per calendar quarter - $2,500
For greater than twenty days per calendar quarter - $3,750

c. For failure to operate air pollution control devices within parameters as established under Paragraphs 15-29 (other than, for parameters as established under Paragraphs 23-26, startup, shutdown or malfunction events as defined in 40 C.F.R. Part 63), per day, per device:

For two to six days per calendar month - $1,500
For seven through twelve days per calendar month - $2,500
For greater than twelve days per calendar month - $3,750

d. For failure to meet the 12-month rolling average solvent loss ratio limits established pursuant to Paragraphs 19-22:

For each exceedance of a 12-month rolling average - $30,000

e. For failure to install CEMs on sources pursuant to Paragraphs 30(a)-(c) and Appendices B, C and D, per a CEM not timely installed:

For first full month of delay - $2,500
For each subsequent month and fraction thereof - $2,500

f. For failure to certify CEMs pursuant to Paragraphs 30(a)-(c) and Appendices B, C and D, per a CEM not certified:

For first full month of delay - $2,500
For each subsequent month and fraction thereof - $2,500

g. For failure to operate CEMs pursuant to Paragraphs 30(a)-(c) and Appendices B, C and D, per CEM not operated, $100 per day.

h. For failure to apply for permits incorporating emission limits as required by Paragraphs 15-28, $1,000 per the first full week of delay, and $1,000 per each subsequent week of delay, or fraction thereof.

i. For failure to preserve records as specified in Paragraph 37 of the Consent Decree:

Per record not retained per day: $500

j. For failure to conduct a compliance test as required by Paragraph 30, per day, per unit:

1st through 30th day after deadline	$1,000
31st through 60th day after deadline	$2,000
Beyond 60th day	$5,000

k. For failure to complete the CO emission reduction project required under Paragraph 17, $1,000 per a day.

l. For failure to submit a semi-annual report required by Paragraph 36 of this Consent Decree, per day:

1st through 30th day after deadline	$200
31st through 60th day after deadline	$500
Beyond 60th day	$1,000

m. For failure to notify the Plaintiffs of Cargill's sale or transfer of a facility pursuant to Paragraph 2, $250 per day.

n. For failure to pay the civil penalty as specified in Section V of this Consent Decree, Cargill shall pay an additional $30,000 per week that full payment is delayed plus interest on the amount overdue at the rate specified in 31 U.S.C. § 3717.

o. For failure to satisfactorily complete implementation of the Appendix P SEPs or Community-Based SEPs as required under Paragraphs 45 and 49, Cargill shall pay the shortfall as provided in Paragraph 54 and pay a stipulated penalty of $50,000, each.

p. For failure to submit each of the proposed work plans required by Paragraphs 46 and 50, or each of the completion reports required by Paragraphs 48 and 51 of the Consent Decree, per day:

1st through 30th day after deadline	$1,000
31st through 60th day after deadline	$2,000
Beyond 60th day	$3,000

q. For failure to escrow stipulated penalties as required by Paragraph 59, $1,425 per day.

58. Cargill shall pay stipulated penalties upon written demand by the Plaintiff and the Plaintiff-Intervenors no later than thirty (30) days after Cargill receives such demand. Stipulated penalties shall be paid to the Plaintiff and the Plaintiff-Intervenors as provided in Paragraphs 57 and 84 (Notice and Penalty Payment) of this Consent Decree.

59. Should Cargill dispute its obligation to pay part or all of a stipulated penalty, it may avoid the imposition of the stipulated penalty for failure to pay a penalty due to the Plaintiff and the Plaintiff-Intervenors by placing the disputed amount demanded by the Plaintiff and the Plaintiff-Intervenors, not to exceed $30,000 for any given event or related series of events at any one plant, in a commercial escrow account pending resolution of the matter and by invoking the Dispute Resolution provisions of Part IX within the time provided in Paragraph 58 for payment of stipulated penalties. If the dispute is thereafter resolved in Cargill's favor, the escrowed amount plus accrued interest shall be returned to Cargill. Otherwise the Plaintiff and Plaintiff-Intervenors shall be entitled to the escrowed amount that was determined to be due by the Court plus the interest that has accrued on such amount, with the balance, if any, returned to Cargill.

60. The Plaintiff and Plaintiff-Intervenors reserve the right to pursue any other remedies for violations of this Consent Decree to which they are entitled. The Plaintiff and Plaintiff-Intervenors will not seek stipulated penalties and civil or administrative penalties for the same violation of the Consent Decree.

VII. RIGHT OF ENTRY

61. Nothing in this Consent Decree shall limit the authority of EPA and Plaintiff-Intervenors to conduct tests and inspections under Section 114 of the Act, 42 U.S.C. § 7414, or any other applicable law.

VIII. FORCE MAJEURE

62. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, Cargill shall notify the Plaintiff and Plaintiff-Intervenors in writing as soon as practicable, but in any event within twenty (20) business days of when Cargill first knew of the event or should have known of the event by the exercise of due diligence. In this notice Cargill shall specifically reference this Paragraph of this Consent Decree and describe the anticipated length of time the delay may persist, the cause or causes of the delay, and the measures taken or to be taken by Cargill to prevent or minimize the delay and the schedule by which those measures will be implemented. Cargill shall adopt all reasonable measures to avoid or minimize such delays.

63. Failure by Cargill to provide notice to the Plaintiff and Plaintiff-Intervenors of an event which causes or may cause a delay or impediment to performance shall render this Part VIII voidable by the Plaintiff and Plaintiff-Intervenors as to the specific event for which Cargill has failed to comply with such notice requirement, and, if voided, is of no effect as to the particular event involved.

64. The Plaintiff or the Plaintiff-Intervenors shall notify Cargill in writing regarding Cargill's claim of a delay or impediment to performance as soon as practicable, but in any event within thirty (30) days of receipt of the Force Majeure notice provided under Paragraph 62. If the Plaintiff or the Plaintiff-Intervenors agree that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Cargill, including any entity controlled by Cargill, and that Cargill could not have prevented the delay by the exercise of due diligence, the parties shall stipulate to an extension of the required deadline(s) for all

requirement(s) affected by the delay by a period equivalent to the delay actually caused by such circumstances. Cargill shall not be liable for stipulated penalties for the period of any such delay.

65. If the Plaintiff and the Plaintiff-Intervenors do not accept Cargill's claim that a delay or impediment to performance is caused by a force majeure event, to avoid payment of stipulated penalties, Cargill must submit the matter to this Court for resolution within twenty (20) business days after receiving notice of the Plaintiff's and the Plaintiff-Intervenors position, by filing a petition for determination with this Court. Once Cargill has submitted this matter to this Court, the Plaintiff and Plaintiff-Intervenors shall have twenty (20) business days to file their response to said petition. If Cargill submits the matter to this Court for resolution and the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Cargill, including any entity controlled by Cargill, and that Cargill could not have prevented the delay by the exercise of due diligence, Cargill shall be excused as to that event(s) and delay (including stipulated penalties), for a period of time equivalent to the delay caused by such circumstances.

66. Cargill shall bear the burden of proving that any delay of any requirement(s) of this Consent Decree was caused by or will be caused by circumstances beyond their control, including any entity controlled by it, and that Cargill could not have prevented the delay by the exercise of due diligence. Cargill shall also bear the burden of proving the duration and extent of any delay(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but does not necessarily, result in an extension of a subsequent compliance date or dates.

67. Unanticipated or increased costs or expenses associated with the performance of Cargill's obligations under this Consent Decree shall not constitute circumstances beyond the control of Cargill, or serve as a basis for an extension of time under this Part. However, failure of a permitting authority to issue a necessary permit in a timely fashion is an event of Force Majeure where Cargill has taken all steps available to it to obtain the necessary permit including but not limited to:

a. submitting a timely and complete permit application;

b. responding to requests for additional information by the permitting authority in a timely fashion; and

c. prosecuting appeals of any disputed terms and conditions imposed by the permitting authority in an expeditious fashion.

68. Notwithstanding any other provision of this Consent Decree, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of Cargill delivering a notice of Force Majeure or the parties' inability to reach agreement.

69. As part of the resolution of any matter submitted to this Court under this Part VIII, the parties by agreement, or this Court, by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance agreed to by the Plaintiff and the Plaintiff-Intervenors or approved by this Court. Cargill shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

IX. DISPUTE RESOLUTION

70. The dispute resolution procedure provided by this Part IX shall be available to resolve all disputes arising under this Consent Decree except as otherwise provided in Part VIII regarding Force Majeure.

71. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the parties to this Consent Decree to another advising of a dispute pursuant to this Part IX. The notice shall describe the nature of the dispute, and shall state the noticing party's position with regard to such dispute. The party receiving such a notice shall acknowledge receipt of the notice and the parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days from the receipt of such notice.

72. Disputes submitted to dispute resolution shall, in the first instance, be the subject of informal negotiations between the parties. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting between representatives of the Plaintiff, the Plaintiff-Intervenors with jurisdiction over the facility at which the dispute arose and Cargill, unless the parties' representatives agree to shorten or extend this period.

73. In the event that the parties are unable to reach agreement during such informal negotiation period, the Plaintiff and the participating Plaintiff-Intervenors shall provide Cargill with a written summary of their position regarding the dispute. In the event the Plaintiff and the participating Plaintiff-Intervenor disagree, the position of the Plaintiff shall control. The position advanced by the Plaintiff and the participating Plaintiff-Intervenors shall be considered binding unless, within forty-five (45) calendar days of Cargill's receipt of the written summary of the

Plaintiff and the participating Plaintiff-Intervenors position, Cargill files with this Court a petition which describes the nature of the dispute, and includes a statement of Cargill's position and any supporting data, analysis, and/or documentation relied on by Cargill. The Plaintiff and the participating Plaintiff-Intervenors shall respond to the petition within forty-five (45) calendar days of filing.

74. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set out in this Part IX may be shortened upon motion of one of the parties to the dispute.

75. Notwithstanding any other provision of this Consent Decree, in dispute resolution, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of invocation of this Part IX or the parties' inability to reach agreement. The final position of the Plaintiff and the participating Plaintiff-Intervenors shall be upheld by the Court if supported by substantial evidence in the record as identified and agreed to by all the Parties.

76. As part of the resolution of any dispute submitted to dispute resolution, the parties, by agreement, or this Court, by order, may, in appropriate circumstances, extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of dispute resolution. Cargill shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

X. GENERAL PROVISIONS

77. Effect of Settlement.

a. This Consent Decree is not a permit; compliance with its terms does not guarantee compliance with any applicable federal, state or local laws or regulations. During the effective period of the Consent Decree, Cargill shall comply with the specific emission reduction requirements, emission limits, operating parameters, monitoring requirements and recordkeeping requirements specified in this Consent Decree including those specified pursuant to Paragraph 19, which shall supercede and control over corresponding terms and conditions of any air quality control permits existing as of the date of entry of this Consent Decree.

b. In determining whether a future modification will result in a significant net emissions increase, Cargill shall not take credit for any emissions reductions required by this Consent Decree, as set forth in Paragraphs 15-27, for netting purposes as defined by the applicable regulations implementing Part C of Title I of the Clean Air Act. In addition, the emission reductions of PM, PM10, NO_x, SO_2, CO and VOC (at units other than dryers) required under this Consent Decree, as set forth in Paragraphs 15-27, may not be used for any emissions offset, banking, selling or trading program. No further offsets are required for any emission units existing at the facilities in Appendix A as of the date of lodging of this Consent Decree. Cargill may continue to sell and trade: i) NO_x credits of 50 tons per year for the Memphis facility (an amount equal to the average credits available to Cargill in 2003 and 2004 and representative of Cargill's baseline operations); and ii) emission credits resulting from reductions in excess of those required

to meet the emission limits set forth in Appendices B-L. Cargill may not use VOC emission reductions up to 98 percent of the uncontrolled dryer emissions from sources in Appendices H, I and J for any emissions offset, banking, selling or trading program.

c. Nothing in this Consent Decree shall be construed to limit the ability of the State of Nebraska to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and the PSD increment provisions of 40 C.F.R. Part 52.21(c) and the corresponding state regulations.

78. Resolution of Claims. Satisfaction of the requirements of this Consent Decree constitutes full settlement of and shall resolve all past civil and administrative liability of Cargill and all owners and prior owners and/or operators of the facilities listed in Appendix A to the Plaintiff and the Plaintiff-Intervenors for the violations alleged in the United States' and Plaintiff-Intervenors' Complaints (and any Notices of Violation referenced therein), and all civil and administrative liability of Cargill, and all owners and prior owners and/or operators of the facilities listed in Appendix A, for any violations at the facilities included in Appendix A arising out of facts and events that occurred or may have occurred during the relevant time period, or that arise out of execution of the provisions of this Consent Decree, under the following statutory and regulatory provisions:

a. PSD and Nonattainment New Source Review Requirements at Parts C and D of Subchapter I of the Act and the regulations promulgated thereunder at 40 C.F.R. Part 52.21 and 51.165, and the SIP provisions which incorporate and implement the above listed federal statute and regulations;

b. New Source Performance Standards under Section 111 of the Clean Air Act and the regulations promulgated thereunder at 40 C.F.R. Part 60, including Subparts D, Db, Dc, DD, Kb, GG, VV, and Y, and the SIP provisions which incorporate and implement the above listed federal statute and regulations;

c. Toxic Chemical Release Reporting Requirements pursuant to EPCRA Section 313, 42 U.S.C. § 11023;

d. CERCLA Notification and Reporting Requirements under EPCRA Section 304, 42 U.S.C. § 11004;

e. State Implementation Plan Requirements and State and Local Air Permitting Statutes and Regulations for: (1) permitting of the construction and operation of new and modified stationary sources; (2) requirements relating to emission limits in permits issued for such construction and operation; (3) performance testing and emissions monitoring; (4) data submission and notification requirements; (5) supplementation of permit applications; (6) hazardous air pollutants; (7) emission limits, control requirements, and standards of performance; (8) odor, noise or other nuisance; and (9) payment of fees based on quantity of emissions.

For purposes of this Consent Decree, the "relevant time period" shall mean the period beginning when the United States' claims and/or Plaintiff-Intervenor's claims under the above statutes and regulations accrued through the date of entry of this Consent Decree. During the effective period of the Consent Decree, the emission units subject to this Consent Decree shall be on a compliance schedule and any modification to these units, as defined in 40 C.F.R. Part 52.21, which is not required by this Consent Decree is

beyond the scope of this resolution of claims. Nothing in this Paragraph 78 shall be construed to limit the Plaintiff and Plaintiff-Intervenor's right to demand stipulated penalties in accordance with Paragraph 57. Paragraph 78 shall survive the termination of the Consent Decree.

79. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve Cargill of its obligation to comply with all applicable federal, state and local laws and regulations. Nothing in this Consent Decree shall relieve Cargill of its obligation to comply with state and local laws, rules and regulations which become effective after the date of lodging of the consent decree or with State Implementation Plan provisions promulgated after the date of lodging of the Consent Decree. Subject to Paragraphs 60 and 78, nothing contained in this Consent Decree shall be construed to prevent or limit the United States' or the Plaintiff-Intervenor's rights to obtain penalties or injunctive relief under the Act or other federal, state or local statutes or regulations, including but not limited to, Section 303 of the Act, 42 U.S.C. § 7603.

80. Third Parties. Except as otherwise provided by this Consent Decree or by law, this Consent Decree does not limit, enlarge or affect the rights of any party to this Consent Decree as against any third parties. Nothing in this Consent Decree should be construed to create any rights, or grant any cause of action, to any person not a party to this Consent Decree.

81. Costs. Each party to this Consent Decree shall bear its own costs and attorneys' fees through the date of entry of this Consent Decree.

82. Public Documents. All information and documents submitted by Cargill to the Plaintiff and Plaintiff-Intervenors pursuant to this Consent Decree shall be subject to public

inspection, unless subject to legal privileges or protection or identified and supported as business confidential by Cargill in accordance with 40 C.F.R. Part 2.

83. Public Comments - Federal Approval. The parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the requirements of 28 C.F.R. Part 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and consideration of any comments. The United States reserves the right to withdraw or withhold consent if the comments regarding this Consent Decree disclose facts or considerations which indicate that this Consent Decree is inappropriate, improper or inadequate. Cargill and the Plaintiff-Intervenors consent to the entry of this Consent Decree.

84. Notice and Penalty Payment. Unless otherwise provided herein, notifications to or communications with the United States, EPA, the Plaintiff-Intervenors or Cargill shall be deemed submitted on the date they are postmarked and sent either by overnight receipt mail service or by certified or registered mail, return receipt requested. Except as otherwise provided herein, when written notification to or communication with the United States, EPA, the Plaintiff-Intervenors or Cargill is required by the terms of this Consent Decree or when payment of a penalty is required by the terms of this Consent Decree, it shall be addressed or paid as set forth in Appendix Q:

85. Change of Notice Recipient. Any party may change either the notice recipient or the address for providing notices to it by serving all other parties with a notice setting forth such new notice recipient or address.

86. Modification. Except as provided herein, there shall be no modification of this Consent Decree without written agreement of the parties. There shall be no material modification of this Consent Decree without the written agreement of the parties and by Order of the Court.

87. Continuing Jurisdiction. The Court retains jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, or modification. During the term of this Consent Decree, any party may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

XI. TERMINATION

88. Prior to complete termination of the requirements of this Consent Decree, any party may, upon motion to the Court, seek to terminate specific provisions of this Consent Decree. This Consent Decree shall be subject to complete termination upon motion by any party after Cargill satisfies all requirements of this Consent Decree. At such time, if Cargill believes that it is in compliance with the requirements of this Consent Decree, and has paid the civil penalty and any stipulated penalties required by this Consent Decree, then Cargill shall so certify to the Plaintiff and the appropriate Plaintiff-Intervenors, and unless the Plaintiff and the appropriate Plaintiff-Intervenors object in writing with specific reasons within sixty (60) days of receipt of the certification, the Court shall order that this Consent Decree be terminated on Cargill's motion. If the Plaintiff or Plaintiff-Intervenors object to Cargill's certification, then the matter shall be submitted to the Court for resolution under Part IX ("Dispute Resolution") of this Consent Decree. Paragraphs 39 and 78 shall survive the termination of the Consent Decree.

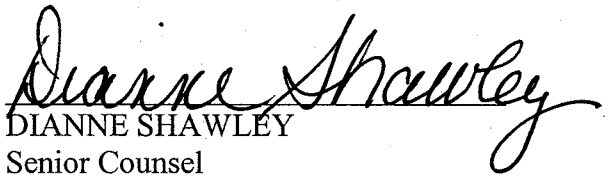
So entered in accordance with the foregoing this _____day of _____, 2005.

_____

United States District Court Judge
District of Minnesota

FOR PLAINTIFF, THE UNITED STATES OF AMERICA:

KELLY A. JOHNSON
Acting Assistant Attorney General
Environment and Natural Resources
Division
U.S. Department of Justice



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(202) 514-0096

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600 U.S. Courthouse
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By: _____
FRED SIEKERT
Assistant United States Attorney
District of Minnesota

United States et al. v. Cargill, Inc.

For Headquarters US EPA

Phyllis R. Harris for 8/10/05

THOMAS V. SKINNER DATE
Acting Assistant Administrator
Office of Enforcement and Compliance Assurance
1200 Pennsylvania Ave, N.W.
Washington, D.C. 20460

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Date 7-27-05

Bharat Mathur
Acting Regional Administrator
U.S. Environmental Protection
Agency, Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Richard E. Greene
Regional Administrator
U.S. Environmental Protection
Agency, Region VI
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

Date 07-22-05

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Date AUG - 1 2005

J. I. Palmer, Jr.
Regional Administrator
U.S. Environmental Protection
Agency, Region IV
Sam Nunn Atlanta Federal Center
61 Forsyth Street SW
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FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Date: JUL 2 1 2005

Robert E. Roberts
Regional Administrator
US EPA Region 8
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United States et al v. Cargill, Incorporated

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

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FOR THE PLAINTIFF-INTERVENOR, THE STATE OF ALABAMA

Ronald W. Gore

Date 8-1-05

Name
Title
Address

CHIEF, AIR DIVISION
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MONTGOMERY, AL.

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF GEORGIA

Carol A Couch

Date Aug 1, 2005

Name
Title
Address

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF ILLINOIS

FOR THE STATE OF ILLINOIS
PEOPLE OF THE STATE OF ILLINOIS *ex rel.*

LISA MADIGAN,
Attorney General of the State of Illinois

MATTHEW J. DUNN, Chief
Environmental Enforcement/Asbestos Litigation Division

BY:_____ DATE: 8/08/05
THOMAS DAVIS, Chief
Environmental Bureau
Assistant Attorney General

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BY:_____ DATE: 8/16/05
ROBERT A. MESSINA
Chief Legal Counsel

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF INDIANA

Date: JULY 25, 2005

THOMAS W. EASTERLY
Commissioner
Indiana Department of Environmental Management

Approved as to form and legality:

STEVE CARTER
Indiana Attorney General

Date: August 5, 2005

CHARLES J. TODD
Chief Operating Officer
Office of the Attorney General
Indiana Government Center South
5th Floor
302 West Washington Street
Indianapolis, IN 46204

FOR THE PLAINTIFF-INTERVENOR,
STATE OF IOWA

THOMAS J. MILLER
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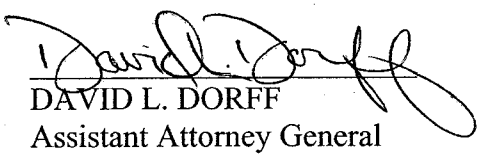

Date 7/27/05

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FOR PLAINTIFF-INTERVERNOR, THE STATE OF MISSOURI

Date: 6/1/05

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Date: 7/29/05

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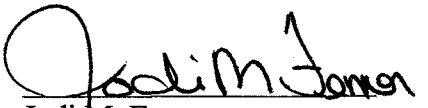
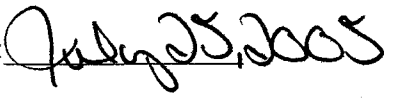
FOR PLAINTIFF-INTERVENOR, THE STATE OF NEBRASKA:

By: JON C. BRUNING
Attorney General

By:  Date: 

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FOR THE PLAINTIFF-INTERVENOR, THE STATE OF NORTH CAROLINA

B. Keith Overcash

Date 8/2/05

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FOR THE PLAINTIFF-INTERVENOR, THE STATE OF OHIO

JIM PETRO
ATTORNEY GENERAL OF OHIO

Margaret A. Malone

Date: 8/8/05

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FOR THE COMBINED HEALTH DISTRICT OF MONTGOMERY COUNTY, OHIO
REGIONAL AIR POLLUTION CONTROL AGENCY

John A. Paul

Date: 8/8/05

JOHN A. PAUL, RAPCA Supervisor
Duly Authorized Agent for the Health Commissioner
RAPCA
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Dayton, Ohio 45422

RECEIVED
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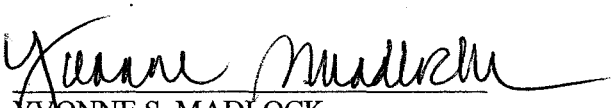
REGIONAL AIR
POLLUTION CONTROL

FOR THE PLAINTIFF-INTERVENOR, THE TENNESSEE COUNTY OF SHELBY AND CITY OF MEMPHIS



Date 8/6/05

YVONNE S. MADLOCK
Director
Memphis and Shelby County Health Department
814 Jefferson Avenue
Memphis, Tennessee 38105

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF NORTH DAKOTA

Date 7-25-05

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State Health Officer
State of North Dakota
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Facsimile 701.328.4727

United States, et al. v. Cargill Incorporated

For the County of Linn, Iowa:

JEFFREY L. CLARK
Assistant Linn County Attorney

7/22/05
Date

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FOR THE IOWA COUNTY OF POLK Date: 7/25/05

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FOR DEFENDANT, CARGILL, INCORPORATED

Date Aug 02, 2005

Ronald L. Christenson
Corporate Vice President, Chief Technology Officer
Cargill, Incorporated
15615 McGinty Road West
Wayzata, Minnesota 55391-2398

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Appendix E—Extraction VOC Emission Control Plan—Soybean Processing Plants

Appendix F—Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants

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Appendix I – Integrated Feed/Bran Drying System VOC Emission Control Plan

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Appendix A

List of Cargill Corn and Oilseed Processing Facilities Subject to the Consent Decree

Appendix A- List of Cargill Corn and Oilseed Processing Facilities Subject to the Consent Decree

I. Corn Processing Facilities

Facility	Address
Blair, Nebraska (note 1)	650 Industrial Road Blair, NE 68008
Cedar Rapids, Iowa	1710 16th Street S.E. Cedar Rapids, IA 52401
Dayton, Ohio	3201 Needmore Road Dayton, OH 45414-4321
Decatur, Alabama	1030 State Docks Road Decatur, AL 35601-7538
Dimmitt, Texas (note 2)	700 East Jones Street Dimmitt, TX 79027
Eddyville, Iowa	1 Cargill Drive Eddyville, IA 52553-5000
Hammond, Indiana	1100 Indianapolis Blvd. Hammond, IN 46320
Memphis, Tennessee	2330 Buoy Street Memphis, TN 38113-1502
Wahpeton, North Dakota	18049 County Road 8E Wahpeton, ND 58075

(1) The Blair, NE facility includes all sources and operations that have been permitted as part of the wet corn mill facility (including the ethanol facility). Facilities at Blair, NE that are now, or were in the past, joint ventures with Cargill are not subject to the Consent Decree.

(2) Cargill shall notify the Plaintiff and Appropriate Plaintiff-Intervenor of the re-start of the Dimmitt, TX facility in the first semi-annual report filed pursuant to Paragraph 36 after the re-start of the facility.

II. Oilseed Processing Facilities

Facility	Address
Cedar Rapids East, Iowa	411 6th Street Northeast East Cedar Rapids, IA 52402
Des Moines, Iowa	3030 East Granger Avenue Des Moines, IA 50306
Fayetteville, North Carolina	1754 River Road Fayetteville, NC 28301
Gainesville, Georgia	862 West Ridge Road Gainesville, GA 30501

Guntersville, Alabama	2930 Guntersville Park Drive Guntersville, AL 35976
Iowa Falls, Iowa	602 Industrial Road Iowa Falls, IA 50126
Kansas City, Missouri	2334 Rochester Avenue Kansas City, MO 64120
Raleigh, North Carolina	1400 South Blount Street Raleigh, NC 27603-2506
Sidney, Ohio	2400 Industrial Drive Sidney, OH 45365
Sioux City, Iowa	11th & Clark Streets Sioux City, IA 51101
Wichita, Kansas	1425 North Mosley Wichita, KS 67314
West Fargo, North Dakota	250 7th Avenue NE West Fargo, ND 58078
Cedar Rapids West, Iowa	1110 12th Avenue SW Cedar Rapids IA 52404
Lafayette, Indiana	1503 Wabash Avenue Lafayette, IN 47905
Bloomington, Illinois	115 South Euclid Bloomington, IL 61702

Appendix B

Boiler SO_2 Emission Control Plan

Appendix B - Cargill Boiler SO2 Emission Control Plan

Facility	Emission Unit Description and Number	Heat Input MMBTU	Monitoring
Cedar Rapids	PC Boiler - 72-CB (2)	240.5	CEMS - 12 month rolling sum
Dayton	PC Boiler - B004	567	CEMS - 12 month rolling sum
Decatur	Stoker Boiler - S407 (2)	179.74	CEMS - 12 month rolling sum
Eddyville	Stoker Boiler - 1.001	282.1	CEMS - 12 month rolling sum
Eddyville	Stoker Boiler - 1.002	282.1	CEMS - 12 month rolling sum
Eddyville	Stoker Boiler - 1.003	282.1	CEMS - 12 month rolling sum
Fayetteville	Stoker Boiler - ES22	129	CEMS - 12 month rolling sum
Gainesville	Stoker Boiler - B001	145	CEMS - 12 month rolling sum
Hammond (1)	Blr No.6-Gas Tube & Tile - 1003U	200	N/A
Hammond (1)	Blr No.7-Gas Tube & Tile - 1004U	120	Retire
Hammond (1)	Blr No.8-Gas Tube & Tile - 1005U	120	N/A
Hammond (1)	Blr No.10-Gas Tube & Tile -1006U	120	N/A
Memphis	Stoker Boiler - 8001	247	CEMS - 12 month rolling sum
Memphis	PC Boiler - 8301 (2)	247	CEMS - 12 month rolling sum
Sidney	Stoker Boiler - B001	54.34 (derated to 35.02)	CEMS - 12 month rolling sum
Sidney	Stoker Boiler - B002	54.34 (derated to 26.4)	CEMS - 12 month rolling sum

Comments:

CEMS monitoring shall be in accordance with 40 C.F.R. Part 60 and compliance with 40 C.F.R. Part 60 shall be deemed compliance with this Consent Decree.

Coal analysis will be conducted using at least one composite sample a month.

Notes:

(1) The Hammond boilers No. 6 fuel oil capability is being eliminated as part of the Boiler SO2 Emission Control Plan

(2) Cargill shall demonstrate that the individual facility permit limits comply with the combined SO2 capacity weighted average of 1.2 lb/MMBtu for the Cedar Rapids (PC Boiler - 72-CB), Memphis (PC Boiler - 8301) and Decatur (Stoker Boiler - S407) coal boilers pursuant to paragraph 16 of this Consent Decree using the following compliance demonstration formula:

$X * (240.5/667.5) + Y * (180/667.5) + Z * (247/667.5) <$ or $= 1.2$ lb/ MMBtu
CR heat input capacity = 240.5 lb/ MMBtu
DE heat input capacity = 180 lb/ MMBtu
ME PC heat input capacity = 247 lb/ MMBtu
Total CR, DE, ME PC heat input capacity = 667.5 lb/ MMBtu
X = CR SO2 lb/MMBtu emission rate under new SO2 limit
Y = DE SO2 lb/MMBtu emission rate under new SO2 limit
Z = ME PC SO2 lb/MMBtu emission rate under new SO2 limit

Appendix C

Boiler CO Emission Control Plan

Appendix C—Boiler CO Emission Control Plan

Cargill proposes installation of a staged combustion over fire air system as a CO emissions reduction and combustion optimization project for the Eddyville coal boilers (EU 1.001, 1.002 and 1.039). The project involves adding to the existing overfire air turbulence system including: (1) replacement of the existing overfire air fan with a new higher capacity fan; (2) addition of overfire air nozzles to each of the front and rear boiler walls; and (3) replacement of the headers and nozzles with a higher capacity design. The project also involves engineering and installation of equipment to modify the existing undergrate flue gas recirculation system to promote even distribution of the flue gas across the width of the existing undergrate air ductwork. Cargill also will engineer and install equipment for injecting flue gas above the grate surface. In addition, Cargill will undertake and complete additional boiler efficiency work that may include superheater and economizer repairs or replacement. The project is estimated to cost approximately $8 million. The boilers are currently subject to BACT limits of 1100 lbs of CO per hour per boiler or 3.899 lbs CO/MMBtu heat input. Annual allowable CO emissions are presently 14,454 tons per year. Detroit Stoker Company has provided a guarantee that 12-month rolling average CO emissions from these units will be capable of meeting the proposed limit of 4,374 tons per year based on a 12-month rolling sum based on a flue gas outlet of O2 of 4% wet basis burning powder river basin coal. CO emissions from these units will be measured by a continuous emissions monitor.

Appendix D

Boiler NO_x Emission Control Plan

Appendix D - Cargill Boiler N0x Emission Control Plan

Facility	Emission Unit Description and Number	Heat Input MMBTU	Control Plan	Emission Limitations	Monitoring	Schedule (years from entry of Consent Decree)
Blair	Package Boiler - 20A	198	LNB, FGR	0.07 lb/mmbtu - 30 day rolling average	CEMS	10
Blair	Package Boiler - 20B	198	LNB, FGR	0.07 lb/mmbtu - 30 day rolling average	CEMS	10
Blair	Package Boiler - 20C	198	LNB, FGR	0.07 lb/mmbtu - 30 day rolling average	CEMS	10
Blair	Package Boiler - 21	276.67	LNB, FGR	0.05 lb/mmbtu - 30 day rolling average	CEMS	10
Cedar Rapids	PC Boiler - 72-CB	240.5	LNB/OFA	369 ton per 12-month rolling sum	CEMS	10
Cedar Rapids	Package Boiler - 101	275	LNB, FGR	0.08 lb/mmbtu - 30 day rolling average	CEMS	10
Dayton	PC Boiler - B004	567	LNB, OFA, COMPLY w/NOX SIP PLAN	0.45 lb/mmbtu - 30 day rolling average; 745 ton per 12-month rolling sum	CEMS	5
Dayton	Package Boiler -B005	189.6	RETIRE	Retire	N/A	(Note 1)
Dayton	Package Boiler - B006	318.5	LNB, FGR, REMOVE CURRENT FUEL LIMIT	0.06 lb/mmbtu (NOTE 1) - 30 day rolling average	CEMS	5
Decatur	Stoker Boiler - S407	179.74	GOOD COMBUSTION	0.57 lb/mmbtu - 30 day rolling average	CEMS	10
Decatur	Package Boiler - S411	97.6	BACK UP OPERATION	1800 hrs/12 month rolling period	Recordkeeping	10
Decatur	Package Boiler - S412	122.1	BACK UP OPERATION	1800 hrs/12 month rolling period	Recordkeeping	10
Dimmitt	Package Boiler - S406	98.5	LNB	0.08 lb/mmbtu	Ref. Method Testing	10
Dimmitt	Package Boiler - S407	135.6	LNB	0.14 lb/mmbtu	Ref. Method Testing	10
Eddyville	Stoker Boiler - 1.001	282.1	FGR, COMBINED LIMIT	212.1 lb/hr - 30 day rolling average (NOTE 2)	CEMS	10
Eddyville	Stoker Boiler - 1.002	282.1	FGR, COMBINED LIMIT	212.1 lb/hr - 30 day rolling average (NOTE 2)	CEMS	10
Eddyville	Stoker Boiler - 1.039	282.1	FGR, COMBINED LIMIT	212.1 lb/hr - 30 day rolling average (NOTE 2)	CEMS	10
Eddyville	Package Boiler - 51	230	FGR, COMBINED LIMIT	0.06 lb/mmbtu	CEMS	10
Eddyville	Package Boiler - 84	182.1	FGR, COMBINED LIMIT	212.1 lb/hr - 30 day rolling average (NOTE 2)	CEMS	10
Eddyville	Package Boiler 86	182.1	LNB, FGR, COMBINED LIMIT	212.1 lb/hr - 30 day rolling average (NOTE 2)	CEMS	10
Fayetteville	Stoker Boiler - ES22	129	GOOD COMBUSTION	0.7 lb/mmbtu	Ref. Method Testing	10
Gainesville	Stoker Boiler - B001	145	GOOD COMBUSTION	0.41 lb/mmbtu	Ref. Method Testing	10
Hammond	Package Boiler - 1001U	96	RETIRE	Retire	N/A	10
Hammond	Package Boiler - 1002U	160	LNB, FGR, COMBINED LIMIT	0.06 lb/mmbtu	Ref. Method Testing/Recordkeeping	10
Hammond	Gas Tube & Tile - 1003U	200	COMBINED LIMIT	0.28 lb/mmbtu	Ref. Method Testing/Recordkeeping	10
Hammond	Gas Tube & Tile - 1004U	120	RETIRE	Retire	N/A	10
Hammond	Gas Tube & Tile - 1005U	120	BACK UP OPERATION, COMBINED LIMIT	1800 hrs/12 month rolling period	Recordkeeping	10
Hammond	Gas Tube & Tile - 1006U	120	BACK UP OPERATION, COMBINED LIMIT	1800 hrs/12 month rolling period	Recordkeeping	10
Memphis	Stoker Boiler - 8001	247	TBD	Combined (8001, 8301, & 8500) limit of 786 tons per 12 month rolling sum (NOTE 3)	CEMS	3 (NOTE 4)
Memphis	PC Boiler - 8301	247	TBD		CEMS	3 (NOTE 4)
Memphis	Package Boiler - 8500	312	TBD		CEMS	3 (NOTE 4)
Sioux City	Package Boiler - 23	184.3	LNB, FGR	0.06 lb/mmbtu - 30 day rolling sum	CEMS	10
Sioux City	Package Boiler - 17	97	BACK UP OPERATION	Only operational when Boiler - 23 is not operating	Recordkeeping	10

Comments:

To permit the installation of boiler NOx control, Cargill may bring on site and use temporary boilers, provided boilers are gas fired and fired for no longer than 30 days per an installation.

CEMS monitoring shall be in accordance with 40 CFR Part 60 and compliance with 40 CFR Part 60 shall be deemed compliance with this Consent Decree.

Notes:

(1) To implement the retiring of B005 and the acceptance of 0.06 lb/mmbtu on B006, the natural gas fuel usage limits on B006 will be removed from Ohio Permit to Install No. 08-4215. Cargill will comply with the 0.06 lb/mmbtu emission limitation when using natural gas or fuel oil. Within twenty-four months of the date of lodging of this consent decree, Cargill will submit an Ohio permit to install application to RAPCA for the retirement of B005 and the removal of the natural gas useage restrictions for B006.

(2) Total NOx from Stoker Boilers 1.001, 1.002, 1.039 and package boilers 84 and 86 is limited to 212.1 lb/hr., 30 day rolling average.

(3) To implement the NOx cap, coal volume limits and ash limits on 8001 and 8301 are removed.

(4) All controls required to meet the total NOx allowable shall be installed by the end of the third year from entry of the Consent Decree. Compliance with the 12-month rolling sum shall be demonstrated beginning 12 months after the third year from entry of the Consent Decree.

Appendix E

Extraction VOC Emission Control Plan—Soybean Processing Plants

Appendix E—Extraction VOC Emission Control Plan—Soybean Processing Plants

Facility	Design Capacity TPY
Cedar Rapids East, Iowa	1,007,400
Des Moines, Iowa	766,500
Fayetteville, North Carolina	1,095,372
Gainesville, Georgia	990,000
Guntersville, Alabama	1,042,440
Iowa Falls, Iowa	1,040,250
Kansas City, Missouri	993,000
Raleigh, North Carolina	930,750
Sidney, Ohio	945,000
Sioux City, Iowa	1,642,500
Wichita, Kansas	777,000

Total Solvent Loss Capacity Weighted Average:

Cargill shall demonstrate compliance with the Total Solvent Loss Capacity Weighted Average using the following compliance demonstration formula:

Conventional Soybean = $\sum(\text{Seed}_i * \text{SLR}_i) / \sum(\text{Seed}_i) \leq 0.175$ gal/ton

Where: Seed_i = Design capacity of oilseed plant i; and
SLR_i = Final SLR Limit for oilseed plant i.

Appendix F

Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants

Appendix F—Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants

Facility	Design Capacity TPY
West Fargo, North Dakota	735,840
Eddyville, Iowa	547,500
Memphis, Tennessee	547,500
Blair, Nebraska	438,000

Total Solvent Loss Capacity Weighted Average:

Cargill shall demonstrate compliance with the Total Solvent Loss Capacity Weighted Average using the following compliance demonstration formula:

Corn Germ / Sunflower = $\sum(\text{Seed}_i * \text{SLR}_i) / \sum(\text{Seed}_i) \leq 0.30$ gal/ton

Where: Seed_i = Design capacity of oilseed plant i; and
SLR_i = Final SLR Limit for oilseed plant i.

Appendix G

Extraction VOC Emission Control Plan – Specialty Plants

Appendix G

Extraction VOC Emission Control Plan – Specialty Plants

Location	Specialty Solvent Loss Factor	Conventional Solvent Loss Factor
Lafayette, Indiana	1.0 gal/ton	0.175 gal/ton
Cedar Rapids West, Iowa	0.9 gal/ton	0.175 gal/ton
Bloomington, Illinois	0.9 gal/ton	0.175 gal/ ton

Compliance Demonstration Calculation

$$\text{Compliance Ratio} = \frac{\text{Actual Solvent Loss}}{\sum_{i=1}^{n} ((\text{Oilseed})_i * (\text{SLF})_i)}$$

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months

Oilseed = Tons of each oilseed type "i" (Specialty and Conventional) processed during the previous 12 operating months

SLF = The corresponding solvent loss ratio limit (gal/ton) for oilseed "i" listed in Table

Compliance is to be determined on a location specific basis.
If the compliance ratio is less than or equal to 1, the source was in compliance.

Appendix H

Corn Processing VOC Emission Control Plan

Appendix H - Corn Processing VOC Emission Control Plan

Facility	Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters Monitored	Compliance Operating Range	Parameter Monitoring Frequency	Schedule (years from lodging of Consent Decree)
Blair	Carbon Furnace - Fructose - (58)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Blair	Gluten Flash Drying - (8)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Blair	Steephouse Scrubber (5)	Scrubber	95% control or <= 20 ppm or alternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	3
Cedar Rapids	Carbon Furnace - Corn Syrup - (EU32)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Cedar Rapids	Feed Drying - Rotary - (EU-72-FD)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Feed Drying - STD - (EU-72-FD)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Germ Drying - Fluid Bed - (EU-113)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Germ Drying - Fluid Bed - (EU-20)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Steephouse Scrubber (EU-41)	Scrubber	95% control or <= 20 ppm or alternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	3
Dayton	Carbon Furnace - Corn Syrup - (P067)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Dayton	Carbon Furnace - Fructose - (P582)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Dayton	Gluten Drying - Flash - (P057)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Germ Drying - STD - (P031)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Germ Drying - STD - (P052)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Germ Drying - STD - (P088)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Gluten Drying - Flash - (P072)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	5
Decatur	Carbon Furnace	Zero hearth furnace or thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Decatur	Carbon Furnace	Zero hearth furnace or thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Decatur	Feed Drying - Rotary	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dimmitt	Carbon Furnace - (S-304)	Zero hearth furnace or thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Eddyville	Carbon Furnace - (37.000)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Eddyville	Carbon Furnace - (56.000)	Zero hearth furnace	95% control or <= 10 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Eddyville	Millhouse Scrubber (9.000)	Scrubber	95% control or <= 20 ppm or alternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	3
Eddyville	Millhouse Scrubber (102.000)	Scrubber	95% control or <= 20 ppm or alternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	3
Eddyville	Millhouse Scrubber (119.000)	Scrubber	95% control or <= 20 ppm or alternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	3

Appendix H - Corn Processing VOC Emission Control Plan

Facility	Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters Monitored	Compliance Operating Range	Parameter Monitoring Frequency	Schedule (years from lodging of Consent Decree)
Hammond	Carbon Furnace - (104-01-R)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3 (2)
Hammond	Feed Drying - Rotary - (124-01-G)	Thermal oxidizer	TBD (Note 4)	Operating Temperature	TBD (3 hour average)	Continuously	5 (2)
Hammond	Germ Drying - Rotary - (21A-02-G)	Thermal oxidizer	TBD (Note 4)	Operating Temperature	TBD (3 hour average)	Continuously	5 (2)
Hammond	Germ Drying - Rotary - (51A-02-G)	Thermal oxidizer	TBD (Note 4)	Operating Temperature	TBD (3 hour average)	Continuously	5 (2)
Memphis	Carbon Furnace - Corn Syrup - (6008)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Memphis	Carbon Furnace - Fructose - (9002)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Memphis	Carbon Furnace - Fructose - (9008)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Memphis	Gluten Drying - Flash - (4008B)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Gluten Drying - Flash - (4011)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Wahpeton	Carbon Furnace - Fructose - (REP41)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	3

Comments:

In addition, for unit(s) controlled by RTOs not designed for on-line regeneration (i.e., bake-out) and that are not preceded by a WESP or equivalent device(s), the emission limitations do not apply to periods of off-line RTO regeneration not to exceed 50 unit operating hours per calendar year and individual off-line RTO regeneration periods not to exceed 12 unit operating hours. *For RTOs servicing more than one unit, a unit operating hour is any hour in which one or more of the unit is on line.* Off-line RTO regeneration while all associated units are shut down is not included in these operating limitations. Also, off-line RTO regeneration periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to perform an off-line RTO regeneration) are not included in these limitations (i.e., Cargill may perform "preventative "off--line RTO regenerations during periods when the RTO is off-line for other reasons such as when the RTO is off-line due to maintenance or malfunction of upstream PM control equipment which requires bypass of the RTO). Cargill may petition EPA and the appropriate state or local regulatory agency to adjust these operating limitations for a specific RTO. With respect to the Dayton, OH facility, *all on-line regeneration (or bake-out) shall be conducted in accordance with OAC Rules* 3745-15-06(A)(3)) and 3745-15-06(B).

All To Be Determined (TBD) values will be established through stack testing pursuant to Appendices M and O.

Notes:

(1) *To the extent that the VOC performance test for this source demonstrates emissions above the 20 ppm and 95 percent* VOC destruction efficiency emission limit noted above, within 90 days from the date of the performance test, Cargill shall submit a Supplemental VOC Emission Control Plan to the Plaintiff and the Appropriate Plaintiff-Intervenors that will establish a schedule to be completed within five years of lodging of this Consent Decree to demonstrate VOC emission reductions at the facility that are equivalent to or greater than the ton per year reduction necessary for the tested source to meet the lesser of either the 95 percent destruction or 20 ppm standard. Such reductions may be derived from either: (1) sources existing at the facilities as of the date of lodging of this Consent Decree and not subject to additional VOC control under this Appendix to the Consent Decree based on *2003 baseline VOC emissions (as adjusted, if necessary, to reflect changes to test methodology); or (2) for sources at the facility that are subject to VOC control under this Appendix to the Consent* Decree, VOC emissions reductions in excess of the emission limits established for such sources. Such supplemental emission reductions will become an enforceable part of this Consent Decree upon approval by the Plaintiff and Appropriate Plaintiff-Intervenors.

(2) Within five years from the date of lodging of this Consent Decree, Cargill shall submit the emission limits established pursuant to Paragraph 23 and this Appendix as an amendment to the Hammond, Indiana facility's RACT plan; IDEM shall incorporate the emission limits into the RACT plan.

(3) Cargill shall demonstrate compliance with 98% control by complying with the Dayton, Ohio Corn Processing Ozone Cap in Appendix J.

(4) The overall control efficiency requirement for this unit shall be established through performance testing approved by IDEM and conducted in accordance with Appendix M. IDEM will establish the overall control efficiency requirement based on the level of efficiency demonstrated during this testing. The final control efficiency requirement will be established pursuant to Paragraph 34.

Appendix I

Integrated Feed/Bran Drying System VOC Emission Control Plan

Appendix I - Integrated Feed/Bran Drying Systems VOC Emission Control Plan

Facility	Emission Unit Description and Number	Control Device Description	Parameters Monitored	Parameter Monitoring Frequency	Emission Unit Description and Number	Control Device Description	Parameters Monitored (5)	Parameter Monitoring Frequency	Emission Limit
Dayton	Feed Dryer - STD - (P032) Feed Dryer - STD - (P033) Feed Dryer - STD - (P034)	Thermal Oxidizer	Temp = 1500 F (2)	Continuously	Bran Dryer - Rotary - (P040) Bran Dryer - Rotary - (P058) Bran Dryer - Rotary - (P037)	Scrubbers	*Pressure Drop > 6 inwc (3) (8)* pH > 8 (3) (8) Scrubbant Flow Rate > 850 gpm/600 gpm (2,4)	*Continuously* Continuously Continuously	TBD (6)
Memphis	Feed Dryer - STD - (4003) Feed Dryer - STD - (4003) Feed Dryer - STD - (4003)	Thermal Oxidizer	Temp = 1500 F (2)	Continuously	Bran Dryer - Rotary - (4003) Bran Dryer - Rotary - (4003)	Scrubbers	Pressure Drop > 6 inwc (3) pH: > 8 (3) Scrubbant Flow Rate > 2000 gpm (2,3)	Once Each Day Once Each Day Continuously	TBD (1)
Hammond	Feed Dryer - Rotary - (89-03-G)	Thermal Oxidizer	Temp = TBD (2, 7)	Continuously	Bran Dryer - Flash - (89-01-G)	Scrubber	Pressure Drop > 6 inwc pH > 8 Scrubbant Flow Rate > 400 gpm (2)	Once Each Day Once Each Day Continuously	TBD (1)
Wahpeton	Feed Dryer - Rotary Bran Predryer Germ Dryer	Thermal Oxidizer	Temp = 1350 F (2)	Continuously	Gluten Flash Dryer	Scrubber	*Pressure Drop > 4 inwc* pH: > 3 Scrubbant Flow Rate >100 gpm (2)	*Once Each Day* Once Each Day Continuously	TBD (1)

Comments:

Thermal oxidizers at Dayton and Memphis facilities will be designed to meet a residence time of at least one second and a combustion temperature of 1500°F.

Prior to initial performance testing (as per Appendix M) final optimized scrubber parameters for pH +/- one unit of listed parameters and scrubbant flow rate +/- 20 percent of listed parameters will be evaluated and established based on assessment of VOC outlet concentrations using EPA reference test Method 25A for continuous feedback and analysis. The optimized parameters, to the extent they are different from listed parameters, must be met as of the date of initial performance testing and, as of the date of initial peformance testing, replace listed parameters and become an enforceable part of this Consent Decree.

Notes:

(1) Within three years from lodging of this Consent Decree, Cargill shall undertake performance testing of the scrubber outlet of the integrated feed/bran drying system as per Appendix M to establish an emission limit for this system.

(2) 3 hour average.

(3) Operating parameters specified are for each scrubber.

(4) 850 gpm applies to scrubber for P037 & P040 - 600 gpm applies to scrubber for P058.

(5) Within five years from the date of lodging of this Consent Decree, Cargill shall submit the emission limits established pursuant to Paragraph 24 and this Appendix as an amendment to the Hammond, Indiana facility's RACT plan; IDEM shall incorporate the emission limits into the RACT plan.

(6) Within three years from lodging of this Consent Decree, Cargill shall conduct performance testing of the two existing scrubber outlet stacks of the integrated feed/bran drying system as per Appendix M to establish the allowable short-term VOC emission limit for this system. The allowable short-term VOC emission limit will be determined based upon the arithmetic average of the test runs. The measured VOC emission results shall be converted to pounds per hour and multiplied by a factor of 2.2, plus the standard deviation times 2.92 divided by the square root of the number of test runs. The number of test runs shall be not less than three. Emission measurements shall be performed according to U.S. EPA Reference Test Method 25A. In the event U.S. EPA promulgates a new VOC test method and RAPCA requests Cargill to use such method for purposes of demonstrating compliance with any allowable short-term VOC limits, Cargill shall, within 12 months of such request, conduct emissions testing and establish revised allowable VOC limits, which shall be based on data from the new test method plus the standard deviation times 2.92 divided by the square root of the number of test runs.

(7) Feed Dryer (89-03-G) shall demonstrate compliance with a control efficiency requirement of 95% control or <= 10 ppm. The temperature limit for the thermal oxidizer shall equal the temperature at which the feed dryer demonstrates 95% control or <= 10 ppm.

(8) Cargill shall record the pressure drop once per a day; Cargill shall record pH as an average for each 8-hour shift while the emissions unit is in operation.

Appendix J

Dayton Corn Processing

Appendix J – Dayton, Ohio Corn Processing Ozone Cap

Emission Unit Number and Description	Pollutant Included in Ozone Cap	Monitoring
PC Boiler (B004)	NOx	CEM(1)
Package Boiler (B006)	NOx	CEM(1)
Package Boiler (B005)	NOx	Retire
Gluten Drying-Flash (P057)	VOC	Performance Testing (2)(3)
Germ Drying-STD (P031)	VOC	Performance Testing (2)(3)
Germ Drying-STD (P052)	VOC	Performance Testing (2)(3)
Germ Drying-STD (P088)	VOC	Performance Testing (2)(3)
Carbon Furnace -Corn Syrup (P067)	VOC	Performance Testing (2)(3)
Carbon Furnace-Fructose (P582)	VOC	Performance Testing (2)(3)
Gluten Drying-Flash (P072)	VOC	Performance Testing (2)(3)
Feed Dryers-STD (P032, P033 & P034) Bran Dryers-Rotary (P040, P058 & P037)	VOC	Performance Testing (2)(3)

Comments:

The 12-month rolling sum total of 854 tons of NO_X and VOC emissions from the sources and for the pollutants noted in column 2 above will be used to demonstrate compliance with the ozone cap of 854 tons of VOC and NO_X per 12-month period as per paragraphs 25 and 30 of the Consent Decree. Compliance with the 12-month rolling sum ozone cap of 854 tons for the process source VOC and boiler NO_X emission sources listed in Appendix J above shall be demonstrated during the first 11 months following the fifth year from lodging of the Consent Decree based on the following schedule of limits in tons per year:

Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
142	284	356	427	498	567	641	711	749	785	822

In addition to the emissions testing and other requirements of this Appendix J, Cargill shall also comply with the emissions testing requirements set forth in Appendix M, including testing of emission units P032, P033, P034, P040, P058 and P037.

Notes:

(1) Within five years from lodging of the Consent Decree, NOx emissions will be measured by CEMs and recorded by a data acquisition system. Emissions concentrations recorded by the CEMs will be converted to mass emissions using the air volume as determined by the continuous flow monitor.

Appendix J – Dayton, Ohio Corn Processing Ozone Cap

(2) Within five years from lodging of the Consent Decree, annual VOC performance testing (once per 12-month period) will occur for the VOC sources identified above (P032, P033, P034, P040, P058, P037, P057, P031, P052, P088, P067, P582, & P072). All VOC performance testing will be conducted using U.S. EPA Reference Test Method 25A. All measured VOC results will be converted to a pound per hour basis, and multiplied by 2.2 in accordance with OAC Rule 3745-21-10(C)(7).

An emission factor for each VOC source based on pound per hour VOC emission rates as determined during the most recent testing will be divided by a corresponding process rate (bushels of ground corn for dryer sources and tons of carbon regenerated for carbon furnaces). The emission factor will be used to calculate the monthly sum of VOC emissions that will be combined with the monthly sum of NOx emissions from the NOx sources listed in this Appendix to determine compliance with the ozone cap. If a VOC emission unit identified above is modified within the definition of "modification" under OAC 3745-31-01(PPP), then Cargill will retest the VOC emission rate for such emission unit within 90 days from the modification. Cargill shall track compliance with the ozone cap through completion each month of the Ozone Cap Data Recording and Compliance Demonstration Template included in this Appendix.

(3) Within five years from lodging of the Consent Decree, allowable short-term (lb/hour) VOC emission limits will be established for the VOC emission units listed above (P032, P033, P034, P040, P058, P037, P057, P031, P052, P088, P067, P582, & P072). All VOC performance testing shall be conducted through the use of U.S. EPA Reference Test Method 25A. The allowable short-term VOC emission limits will be based on the average of the initial performance test runs. The measured data based upon U.S. EPA Reference Test Method 25A shall be converted to a pound per hour basis, and multiplied by a factor of 2.2, plus the standard deviation times 2.92 divided by the square root of the number of test runs. The number of test runs shall be not less than three. In the event a new VOC test method is promulgated by U.S. EPA, for purposes of demonstrating compliance with any allowable short-term VOC limits, Cargill shall, within 12-months of a request by RAPCA to use such new method, conduct emissions testing using the new method and establish revised allowable VOC limits based on the average of the measured test runs of that new methodology plus the standard deviation times 2.92 divided by the square root of the number of test runs. The number of test runs shall be not less than three. In the event the new promulgated U.S. EPA test method results in a more stringent allowable short-term VOC emissions limit for any of the VOC emission units identified in this Appendix J, Cargill shall demonstrate compliance with the new short-term limit within 24 months of the date of testing through use of the new promulgated U.S. EPA test method. Compliance demonstration with the ozone cap will not change in the event of promulgation of a new test method and always will be demonstrated using the test methodology specified in note 2 above.

(4) For emission inventory purposes, including payment of emission fees, Cargill shall use the emission factor specified in note 2, above. In the event a new VOC test method is promulgated by U.S. EPA, Cargill shall, within 12-months of a request by RAPCA to use such new method, conduct testing of the VOC units listed above using the new method and use the results of such new method for completion of subsequent emission inventory submittals.

Appendix J – Dayton, Ohio Corn Processing Ozone Cap

Ozone Cap Data Recording and Compliance Demonstration Template

		No_x						
Unit ID	Source (Units IDs)	Parameter monitored	Month throughput	Units	Emission factor	Units	Emissions (tons for month)	Data/Emissions Source
B004	PC Boiler (B004)	NO_x	Input directly from NOx CEM*					CEM Data (Per Part 60)
B005	#3 Boiler (B005)	NO_x						CEM Data (Per Part 60)
B006	#4 Boiler (B006)	NO_x						CEM Data (Per Part 60)
Total Month Emissions							0.00	

		VOC						
Unit ID	Source	Parameter monitored	Month throughput	Units	Emission factor ***	Units	Emissions (tons for month)	Data/Emissions Source
P057	Gluten/Germ Dryers	corn		bushels		lb/bushel	0.00	Stack Test
P067	Carbon Furnace - CS	carbon		tons		lb/ton	0.00	Stack Test
P072	Gluten Dryer	corn		bushels		lb/bushel	0.00	Stack Test
P582	Carbon Furnace - FX	carbon		tons		lb/ton	0.00	Stack Test
**	Main Stack	corn		bushels		lb/bushel	0.00	Stack Test
Total Month Emissions							0.00	

* CEM emission concentrations are converted to mass emissions by using the flow as determined by the continuous flow monitor.

** Main stack sources include: P032, P033, P034, P037, P040, P058

*** Emission factors will be based on most recent stack testing results. Individual unit emission factors and emissions (tons per month) will be recorded and 12-month rolling sum calculated for each month by the 15th of the following month.

Total Monthly Emissions	0.00

Appendix K

Corn Processing CO Emission Control Plan

Appendix K - Corn Processing CO Emission Control Plan

Facility	Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters Monitored	Compliance Operating Range	Parameter Monitoring Frequency	Schedule (years from lodging of Consent Decree)
Blair	Carbon Furnace - Fructose - (58)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Blair	Gluten Drying Flash (8)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Carbon Furnace - Corn Syrup - (EU32)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Cedar Rapids	Feed Drying - Rotary - (EU-72-FD)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Feed Drying - STD - (EU-72-FD)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Germ Drying - Fluid Bed - (EU-113)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Germ Drying - Fluid Bed - (EU-20)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Carbon Furnace - Corn Syrup - (P067)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Dayton	Carbon Furnace - Fructose - (P582)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Dayton	Gluten Drying - Flash - (P057)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Germ Drying - STD - (P031)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Germ Drying - STD - (P052)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Germ Drying - STD - (P088)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dayton	Gluten Drying - Flash - (P072)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Decatur	Carbon Furnace	Zero hearth furnace or thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Decatur	Carbon Furnace	Zero hearth furnace or thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Decatur	Feed Drying - Rotary	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Dimmitt	Carbon Furnace - (S-304)	Zero hearth furnace or thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Eddyville	Carbon Furnace - (37.000)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Eddyville	Carbon Furnace - (56.000)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3

Appendix K - Corn Processing CO Emission Control Plan

Facility	Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters Monitored	Compliance Operating Range	Parameter Monitoring Frequency	Schedule (years from lodging of Consent Decree)
Hammond	Carbon Furnace - (104-01-R)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Hammond	Feed Drying - Rotary - (124-01-G)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Hammond	Germ Drying - Rotary - (21A-02-G)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Hammond	Germ Drying - Rotary - (51A-02-G)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Carbon Furnace - Corn Syrup - (6008)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Memphis	Carbon Furnace - Fructose - (9002)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Memphis	Carbon Furnace - Fructose - (9008)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
Memphis	Gluten Drying - Flash - (4008B)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Gluten Drying - Flash - (4011)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Wahpeton	Carbon Furnace - Fructose - (REP41)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3

Comments:

In addition, for unit(s) controlled by RTOs not designed for on-line regeneration (i.e., bake-out) and that are not preceded by a WESP or equivalent device(s), the emission limitations do not apply to periods of off-line RTO regeneration not to exceed 50 unit operating hours per calendar year and individual off-line RTO regeneration periods not to exceed 12 unit operating hours. For RTOs servicing more than one unit, a unit operating hour is any hour in which one or more of the unit is on line. Off-line RTO regeneration while all associated units are shut down is not included in these operating limitations. Also, off-line RTO regeneration periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to perform an off-line RTO regeneration) are not included in these limitations (i.e., Cargill may perform "preventative "off--line RTO regenerations during periods when the RTO is off-line for other reasons such as when the RTO is off-line due to maintenance or malfunction of upstream PM control equipment which requires bypass of the RTO). Cargill may petition EPA and the appropriate state or local regulatory agency to adjust these operating limitations for a specific RTO. With respect to the Dayton, OH facility, all on-line regeneration (bake-out) shall be conducted in accordance with OAC Rules 3745-15-06(A)(3) and 3745-15-06(B).

Appendix L

Hammond Corn Processing Source SO_2 Emission Control Plan

Appendix L - Hammond Corn Processing Process Source SO2 Emission Control Plan

Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters Monitored	Compliance Operating Range	Parameter Monitoring Frequency
Germ Drying-Rotary (21A-02-G)	Scrubber	90% control or <=20 ppm	pH	TBD	Once Each Day
Germ Drying-Rotary (51A-02-G)	Scrubber	90% control or <=20 ppm	pH	TBD	Once Each Day
Bran Dryer-Flash (89-01-G)	Scrubber	TBD (note 2)	pH	TBD (NOTE 1)	Once Each Day
Feed Dryer-Rotary (89-03-G)	Scrubber	90% control or <=20 ppm	pH	TBD	Once Each Day
Feed Drying-Rotary (124-01-G)	Scrubber	90% control or <=20 ppm	pH	TBD	Once Each Day
Gluten Dryer-Flash (121-01-G)	Scrubber	90% control or <=20 ppm	pH	TBD	Once Each Day
Germ Drying-Fluid Bed (124A-01-G)	Scrubber	90% control or <=20 ppm	pH	TBD	Once Each Day
Carbon Furnace (104-01-R)	Scrubber	TBD (note 2)	pH	TBD	Once Each Day

Notes:

(1) The compliance operating range parameters shall be the same as those set forth in Appendix I for this unit.

(2) To establish emission limits for the Bran Dryer (89-01-G) and Carbon Furnace (104-01-R), Cargill shall operate the scrubbers associated with these emission units at a pH equal to the average of the pH operating ranges for all other sources listed in Appendix L established for purposes of demonstrating compliance with the emission limits listed in Appendix L.

Appendix M

Performance Testing Plan

Appendix M - Performance Testing Plan

Facility	Emission Unit Description and Number	Pollutant Tested	Test Methodology	Testing Schedule
Blair	Carbon Furnace - Fructose - (58)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Blair	Gluten Drying - Flash - (8)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Blair	Steephouse Scrubber - (5)	VOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Cedar Rapids	Carbon Furnace - Corn Syrup - (EU32)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Cedar Rapids	Feed Drying - Rotary - (EU-72-FD)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Feed Drying - STD - (EU-72-FD)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Germ Drying - Fluid Bed - (EU-113)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Germ Drying - Fluid Bed - (EU-20)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Gluten Drying - STD - (EU-20)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Gluten Drying - STD - (EU-20)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Steephouse Scrubber - (EU-41)	VOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Dayton	Bran Dryer - Rotary - (P037) (note 1)	VOC	See note 1	By end of year 3 of lodging of the consent decree
Dayton	Bran Dryer - Rotary - (P040) (1)	VOC	See note 1	By end of year 3 of lodging of the consent decree
Dayton	Bran Dryer - Rotary - (P058) (1)	VOC	See note 1	By end of year 3 of lodging of the consent decree
Dayton	Carbon Furnace - Corn Syrup - (P067) (1)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Dayton	Carbon Furnace - Fructose - (P582) (1)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Dayton	Germ Drying - STD - (P031) (1)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dayton	Germ Drying - STD - (P052) (1)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dayton	Germ Drying - STD - (P088) (1)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dayton	Gluten Drying - Flash - (P057) (1)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dayton	Gluten Drying - Flash - (P072) (1)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Decatur	Carbon Furnace	VOC, CO	Testing done per Appendix O	By end of year 5 of lodging of the consent decree
Decatur	Carbon Furnace	VOC, CO	Testing done per Appendix O	By end of year 5 of lodging of the consent decree
Decatur	Feed Drying - Rotary	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dimmitt	Carbon Furnace - (S-304)	VOC, CO	Testing done per Appendix O	By end of year 5 of lodging of the consent decree
Dimmitt	Package Boiler - S406	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Dimmitt	Package Boiler - S407	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Eddyville	Carbon Furnace - (37.000)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Eddyville	Carbon Furnace - (56.000)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Eddyville	Millhouse Scrubber - (102.000)	VOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Eddyville	Millhouse Scrubber - (119.000)	VOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Eddyville	Millhouse Scrubber - (9.000)	VOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Fayetteville	Stoker Boiler - ES22	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Gainesville	Stoker Boiler - B001	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Hammond	Bran Dryer - Flash - (89-01-G)	VOC	TBD	By end of year 3 of lodging of the consent decree
Hammond	Carbon Furnace - (104-01-R)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Hammond	Feed Drying - Rotary - (124-01-G)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Hammond	Feed Dryer - Rotary - (89-03-G)	VOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Hammond	Germ Drying - Rotary - (21A-02-G)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Hammond	Germ Drying - Rotary - (51A-02-G)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Hammond	Package Boiler - 1002U	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Hammond	Gas Tube & Tile - 1003U	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Hammond	Germ Drying-Rotary - (21A-02-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Germ Drying-Rotary - (51A-02-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree

Appendix M - Performance Testing Plan

Facility	Emission Unit Description and Number	Pollutant Tested	Test Methodology	Testing Schedule
Hammond	Bran Dryer - Flash - (89-01-G)	SO2	40 CFR Part 60 Method 6	By end of year 3 of entry of the consent decree
Hammond	Feed Dryer - Rotary - (89-03-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Feed Drying - Rotary - (124-01-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Gluten Dryer - Flash - (121-01-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Germ Drying - Fluid Bed - (124A-01-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Carbon Furnace - (104-01-R)	SO2	40 CFR Part 60 Method 6	By end of year 3 of entry of the consent decree
Memphis	Bran Dryer - Rotary - (4003)	VOC	TBD	By end of year 3 of lodging of the consent decree
Memphis	Bran Dryer - Rotary - (4003)	VOC	TBD	By end of year 3 of lodging of the consent decree
Memphis	Carbon Furnace - Corn Syrup - (6008)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Memphis	Carbon Furnace - Fructose - (9002)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Memphis	Carbon Furnace - Fructose - (9008)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Memphis	Germ Drying - STD - (4011)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Memphis	Germ Drying - STD - (4011)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Memphis	Gluten Drying - Flash - (4008B)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Memphis	Gluten Drying - Flash - (4011)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Sidney	Stoker Boiler - B001	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Sidney	Stoker Boiler - B002	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Sioux City	Package Boiler - 17	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Wahpeton	Carbon Furnace - Fructose - (REP41)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Wahpeton	Gluten Drying - Flash - (FEP21)	VOC	TBD	By end of year 3 of lodging of the consent decree

Comments:

Where exhaust from a specific unit is commingled with exhaust from other sources, compliance will be based on emissions from only the specific unit.

Control Efficiency Testing shall be conducted for VOCs using 40 C.F.R. Part 60, Method 25A; for CO using 40 C.F.R. Part 60, Method 10; and for SO_2 using 40 C.F.R. Part 60, Method 6.

For units listed in Appendices H, I and K, if multiple listed units emit to a single system, Cargill shall demonstrate compliance with any applicable performance standards by demonstrating compliance at the system's end control device that emits to the atmosphere. If the listed units' exhaust is commingled with the exhaust of other units not listed in Appendices H, I and K, Cargill shall demonstrate compliance with the applicable performance standard based on the exhaust of the listed units only.

For new control devices installed after the date of lodging and pursuant to this Consent Decree, Cargill shall conduct testing required by this Appendix M within 180 days after start-up of the newly installed controls.

Notes:
(1) In addition to the emission testing and other requirements of this Appendix M, Cargill shall also comply with the emissions testing requirements set forth in Appendix J.

Appendix N

Extraction Solvent Loss Recordkeeping Template

Appendix N - Extraction Solvent Loss Recordkeeping Template

Date/Month/Year	Total Crush Monthly (tons)	Total Crush 12-Month Rolling (tons)	Conventional Crush Monthly (tons) (Specialty Plants Only)	Conventional Crush 12-Month Rolling (tons) (Specialty Plants Only)	Speciality Crush Monthly (tons) (Specialty Plants Only)	Speciality Crush 12-Month Rolling (tons) (Specialty Plants Only)	Solvent Loss Monthly (gallons)	Solvent Loss 12-Month Rolling (gallons)	Malfunction Period Solvent Loss 12-Month Rolling (gallons)	Adjusted Solvent Loss Monthly (gallons)	Solvent Loss Rate 12-Month Rolling (gallons/ton)

Appendix O

Carbon Furnace Test Protocol

Appendix O

CARBON FURNACE TEST PROTOCOL

A Protocol For Determination Of Volatile Organic Compound And Carbon Monoxide Destruction Efficiency For Afterburners Installed On Carbon Furnace Exhausts.

INTRODUCTION

The protocol sets forth the test methodology, technique and monitoring procedures that will be used to establish after burner operating temperatures required to achieve 95% reduction of volatile organic compounds (VOC) and 90% of carbon monoxide (CO) from carbon furnace exhausts.

PROGRAM SCOPE AND TEST STRATEGY

Because afterburners on carbon furnaces are an integrated part of the furnace, it is not possible to install inlet sampling ports to assess inlet VOC and CO concentrations. VOC and CO destruction efficiency for carbon furnace afterburners, therefore, will be determined by comparing uncontrolled conditions with the afterburner shut off (hereinafter referred to as "inlet" conditions), to controlled emissions with the afterburner operating.

Sequential testing of the carbon furnace with the afterburner shut off and with it operating will be completed such that a minimum amount of time elapses between each "inlet" and outlet test. Although time between each inlet and outlet test will be primarily dictated by the amount of time needed for the afterburner to reach a proper operating temperature or cool down, additional measures will be employed to minimize the time between tests. These measures will include dedicating separate analyzers and heated sample lines for the "inlet" and outlet locations (reduces calibration time as well as the time needed to reach a stable sample line background level). Velocity traverses also will be configured so as not to delay testing (see schedule below). Each test run will consist of one 60-minute outlet test (after burner operating), a period between tests where the afterburner is allowed to cool down, and one 60-minute "inlet" test. In all, a total of three runs totaling 120-minutes of measured data each (60 outlet, 60 inlet) will be completed per unit. Emissions between the two 60-minute segments of each test run while the afterburner is cooling down will not be included in the test result. Prior to the second and third test runs time will be allowed to operate and stabilize the afterburner.

For each test run, gas stream velocity, temperature, moisture and fixed gases will be determined to allow for the calculation of gas stream volumetric flowrate. Velocity traverses will be completed for each "inlet" and outlet test. In addition, moisture will be determined during each test (one moisture determination per "inlet" and outlet test) for a total of 6 moisture runs. Fixed gases also will be determined for each test via collection of an integrated sample and analysis in accordance with EPA Method 3. Accordingly, testing of the carbon furnace afterburners for destruction efficiency will be completed as follows:

- Complete Run 1 outlet (controlled condition) velocity traverse.
- Conduct Run 1 outlet test for VOC, CO, moisture, and fixed gases with the afterburner on. Test run duration will be 60 minutes.
- Turn off the afterburner and wait until the temperature in the afterburner is stabilized and within 100 degrees F of the feed hearth temperature.

- Complete Run 1 "inlet" test for VOC, CO, moisture, and fixed gases for 60 minutes. Conduct Run 1 "inlet" velocity traverse.
- Complete Runs 2 and 3 duplicating the steps cited above for Run 1.

GENERAL SOURCE DESCRIPTION

Activated carbon is used to remove natural impurities present in corn syrup. As the carbon adsorbs impurities from the corn syrup, the carbon becomes saturated (spent) with those impurities and becomes less effective. Once the carbon is no longer useful for the process, the carbon is recycled through regeneration in the carbon furnaces.

Carbon regeneration occurs as the spent carbon is fed into the top sections of the multi-hearth furnace. The carbon passes through three separate zones within the furnace. In each zone, the carbon is subjected to different temperatures and atmospheres to drive off the impurities and restore the carbon. A rotating central shaft circulates a rabble arm that mixes and advances the carbon through the hearths exposing them to the counter-current flow of gases.

The three reaction zones, or steps, that occur in the furnace are drying, pyrolysis, and activation.

A. In the drying, or heating zone (which is the closest zone to the afterburner), water is evaporated off the carbon through the counter-current action of the hot combustion gases. The temperature of the drying zone is approximately 600-1300°F on a six-hearth and 500-1000°F on an eight-hearth furnace.

B. In the second zone, or pyrolysis zone, the temperature is raised to approximately 1300-1700°F in an oxygen-free atmosphere. Under these conditions, the adsorbed organic impurities are pyrolyzed and volatiles are driven off.

C. The third zone is the gasification, or activation zone. The temperature in this area approaches 1800°F. The residues from the carbon are oxidized in a manner that prevents damage to the original carbon pore structure. If the carbon is not heated to reaction temperature, or the carbon is improperly dried, the reaction of water vapor, C02, and adsorbate will not proceed in an effective regeneration process. Once the carbon passes through the final zone of the multiple hearth furnace, the carbon is sent to the quench tank, and then pumped back to the process.

The afterburner, which follows the drying zone of the furnace, is intended to burn the organic compounds driven off of the carbon that do not burn in the furnace.

During the times of testing, the carbon furnace will be operated at or near its rated throughput capacity.

SAMPLING LOCATION DESCRIPTION

Use or installation of test ports and selection of velocity traverse points will be done in accordance with EPA Method 1 criteria.

MONITORING PROCEDURES

VOC and CO measurements and flow monitoring will be completed using the following methods

- Total Gaseous Organics (VOC) - EPA Method 25A
- Carbon Monoxide (CO) – EPA Method 10
- Stack Gas Volumetric Flow Rate - EPA Method 2
- Fixed Gases - EPA Method 3
- Stack Gas Moisture - EPA Method 4

The following provides a description of the sampling and analytical methods to be employed.

VOC (Total Gaseous Organics) - EPA Method 25A

Emissions testing for VOC will be completed in accordance with EPA Method 25A. In this procedure, stack gas is delivered directly to a heated TGO analyzer equipped with a flame ionization detector (FID). The analyzer is calibrated with know concentrations of propane and results are expressed as propane equivalents.

The sample delivery system consists of an in-stack sintered particulate filter and stainless steel sample probe, a three-way valve assembly for delivery of calibration gases to the system probe, a heat-traced Teflon sample line and sample pump. Sample gas is delivered to the FID analyzer on a wet basis and subsequently converted to dry conditions for calculation of a mass emission rate.

The TGO monitors will be VIG-20 Flame Ionization analyzers. The analyzers are expected to be operated in the 0-10,000 ppm range for the inlet location and the 0-100 ppm range for the outlet. The output signals from each analyzer is connected to strip chart recorders as well as an IBM PC, equipped with a Strawberry Tree, analog to digital converter and Workbench® data acquisition system software. This software provides data in 1-minute averages and calculates TGO emission rates in terms of parts per million (ppmv) and pounds per hour (lbs/hr) for each 1-minute average and for each test run.

Carbon Monoxide – EPA Method 10

Carbon Monoxide will be determined in accordance with EPA Method 10, modified to eliminate the ascarite trap used for CO_2 removal. Use of the ascarite trap is not needed for NDIR analyzers which use the gas filter correlation technique to eliminate CO_2 interference. Samples will be collected in conjunction with each test run using the integrated tedlar bag sampling approach described in the method. At the conclusion of each test run, the contents of the integrated tedlar bag will be analyzed for carbon monoxide concentration using a non-dispersive infrared analyzer (NDIR) with gas filter correlation in accordance with the requirements of EPA Method 10. The analyzer will be calibrated using zero gas and two upscale standards as cited in the test method. All other QC requirements specified by the method will be employed.

Stack Gas Volumetric Flowrate – EPA Method 2

Vent stream volumetric flowrate will be determined in conjunction with each test run in accordance with EPA Method 2. Gas stream temperature and moisture will also be determined in association with each flowrate determination. Temperature will be determined using a thermocouple and pyrometer and gas stream moisture via EPA Method 4.

As previously stated, gas stream velocity will be determined in conjunction with each test (before or after each TGO test) while moisture and fixed gases will be measured simultaneous with each TGO test run. The traverse will be completed across two stack diameters as specified in EPA Method 2. All test ports and traverse points will meet the minimum criteria specified in EPA Method 1.

Fixed Gases (O_2 ,CO_2)

Fixed gas (O_2, CO_2) measurement used for the determination of stack gas molecular weight will be completed in accordance with EPA Method 3, "Gas Analysis for the Determination of Dry Molecular Weight". This procedure involves collection of an integrated sample followed by analysis for fixed gases using an Orsat analyzer. O_2, CO_2 are measured directly and N_2 is determined by difference.

Stack Gas Moisture

Stack gas moisture will be measured in accordance with the EPA Method 4, "Determination of Moisture Content in Stack Gases", 40 CFR 60, Appendix A. In this procedure a known volume of stack gas is extracted at a fixed rate through a series of water impingers and silica gel and the collected condensate is measured to determine the gas stream percent moisture. Moisture will be determined simultaneous with each 60-minute inlet and outlet test.

TEST METHOD REFERENCES AND MODIFICATIONS

The following provides detailed references for the test methods proposed for this program. Proposed reference method modifications are listed following the appropriate reference.

1. VOC's -- EPA Method 25A, Measurement of Total Gaseous Organic Concentration Using a Flame Ionization Detector, 40 CFR 60, Appendix A. Calibration standards will be prepared using a propane standard in accordance with the method.
2. CO – EPA Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources, 40 CFR 60, Appendix A.
3. Flow -- EPA Method 2, 40 CFR 60, Appendix A.
4. Moisture -- EPA Method 4, Determination of Moisture Content in Stack Gases - 40 CFR 60, Appendix A.
5. Fixed Gases (O_2, CO_2) – EPA Method 3, Gas Analysis for Determination of Dry Molecular Weight - 40 CFR 60, Appendix A.

DATA REDUCTION REQUIREMENTS

Concentration data from the Method 25A analysis will be reduced for each operating condition, and converted to a pounds of VOC and CO emitted per hour (lb/hr). The "inlet" or uncontrolled condition lb/hr rate will be compared to the outlet or controlled lb/hr rate and a determination of the percent reduction will be made. The results of each test run as well as the percent reduction will be reported to the agency as follows:

Test Run	Inlet Emissions VOC or CO		Outlet Emissions VOC or CO		Destruction Efficiency (%)
Test Run 1		ppmv		ppmv	
		lb/hr		lb/hr	
Test Run 2		ppmv		ppmv	
		lb/hr		lb/hr	
Test Run 3		ppmv		ppmv	
		lb/hr		lb/hr	
Ave ppmv		ppmv		ppmv	
Ave lb/hr		lb/hr		lb/hr	

Destruction efficiency will be calculated using the following equation:

$$Eff = \frac{Ci - Co}{Ci}$$

Where:
Eff = Overall destruction efficiency
Ci = Inlet lb/hr emission rate
Co = Outlet lb/hr emission rate

Appendix P

Supplemental Environmental Projects

Appendix P

Supplemental Environmental Projects

Elimination of Gaseous Sulfur Dioxide – Blair, NE, Cedar Rapids, IA, Dayton, OH, Eddyville, IA and Memphis, TN - Cargill has historically stored gaseous sulfur dioxide at corn wet milling facilities for use in the production process. Gaseous sulfur dioxide is viewed as posing significant environmental and health risks and its storage and use is regulated under 40 CFR Part 68 (Chemical Accident Prevention Provisions) and 29 CFR Part 1910.119 (Process Safety Management of Highly Hazardous Chemicals). Gaseous sulfur dioxide storage exceeds the 40 CFR Part 68 thresholds at Blair, Cedar, Dayton, Eddyville, and Memphis and total gaseous sulfur dioxide storage exceeds 1.2 million pounds at these facilities. This project involves permanent replacement of gaseous sulfur dioxide used in the corn wet milling process with a less hazardous substitute, liquid sodium bisulfide (SBS), which is not subject to either risk management or process safety plan requirements. Project scope will include installation of tanks, piping, and controls for systems located in Blair, Cedar, Dayton, Eddyville, and Memphis, purchase of SBS, and removal of gaseous SO_2 handling capabilities. This project will benefit the environment by eliminating the risk of SO_2 releases through the removal of over 1.2 million pounds of sulfur dioxide storage and reduced SO_2 emissions from facility processes. It is also anticipated that this project would reduce fugitive sulfur dioxide emissions.

Pilot VOC and HAP Reduction Project—Memphis, TN Oxidized Starch Process – VOCs and HAPs are formed in the oxidized starch production process primarily by the reaction of hypochlorite, a bleaching agent, with impurities in the starch. This innovative pollution reduction project will reduce the formation of VOCs and HAPs in the oxidized starch production process, thus reducing associated emissions. The project scope includes the installation and operation of new equipment designed to reduce impurity levels in starch production. Studies by Cargill have determined that reduced impurity levels can significantly reduce formation of VOCs and HAPs in the process. It is anticipated that this project could reduce VOC and HAP emissions from this process by up to 30 percent.

Elimination of Ozone Depleting Substance – Eddyville, IA and Blair, NE – R22 (chlorodifluoromethane) is used in condensers at Cargill's Blair, NE and Eddyville, IA ethanol loadout facilities. These condensers are BACT control devices installed and operated pursuant to the sources' PSD permit. This project is to permanently replace these condensers with an equivalent or better VOC control that results in the removal of R22. Cargill shall not use any of the retired condensers within any of its other facilities (except with a Non-Ozone Depleting Refrigerant) and all refrigerant from the retired condensers shall be either sent for destruction in accordance with the provisions of 40 C.F.R. Part 82.104(h), or reclaimed as defined in 40 C.F.R. Part 82.152, by a certified reclaimer as defined in 40 C.F.R. Part 82.164. This project will benefit the environment by the removal and destruction of over 700 pounds of an ozone depleting substance.

Appendix Q

Notice and Penalty Payment

APPENDIX Q
NOTICE AND PENALTY PAYMENT PROVISIONS

The United States

Payment of penalties:

Payment shall be made in accordance with paragraphs 40 though 42, paragraphs 57 through 59, and paragraph 84 of the Consent Decree.

Contact persons for notices:

Information shall be sent to the appropriate Plaintiffs in accordance with paragraph 84 of the Consent Decree at the addresses below.

U.S. EPA HQ

Technical Contact:
Cary Secrest
Environmental Protection Specialist
US EPA Air Enforcement Division (Mail Code 2242A)
Ariel Rios Building Room 2119
1200 Pennsylvania Ave., N.W.
Washington, DC 20460 [for Fed Ex/UPS use ZIP 20004]
secrest.cary@epa.gov
Phone: 202-564-8661
Fax: 202-564-0053
Cell: 202-236-3499
Air Lab: 410-305-3069

Counsel:
Charlie Garlow
US EPA Air Enforcement Division (Mail Code 2242A)
Ariel Rios Building Room 2111A
1200 Pennsylvania Ave., N.W.
Washington, DC 20460 [for FedEx/UPS use ZIP 20004]
garlow.charlie@epa.gov
Phone: 202-564-1088
Fax: 202-564-0068

U.S. EPA Region 4

Technical Contacts:

Jason McDonald
US EPA Region 4
Atlanta Federal Center
61 Forsyth St. S.W.
Atlanta, GA 30303
mcdonald.jason@epa.gov
Phone: 404-562-9203
Fax: 404-562-9164

Kevin I. Taylor
US EPA Region 4
Atlanta Federal Center
61 Forsyth St. S.W.
Atlanta, GA 30303
taylor.kevin@epa.gov
Phone: 404-562-9134
Fax: 404-562-9164

Counsel:

Gregory R. Tan
Associate Regional Counsel
US EPA Region 4
61 Forsyth St. S.W.
Atlanta, GA 30303
tan.gregory@epa.gov
Phone: 404-562-9697
Fax: 404-562-9486

Please also cc:

Angelia Souder Blackwell
US EPA Region 4
Office of Environmental Accountability
61 Forsyth St. S.W.
Atlanta, GA 30303
blackwell.angelia@epa.gov
Phone: 404-562-9527
Fax: 404-562-9664

U.S. EPA Region 5

Technical Contacts:
Compliance Tracker
US EPA Region 5
77 W. Jackson Blvd AE-17J
Chicago, IL 60604
Phone: 312-886-6797
Fax: 312-353-8289

Counsel:
Kathleen Schnieders
US EPA Region 5
77 W. Jackson Blvd C-14J
Chicago, IL 60604
schnieders.kathleen@epa.gov
Phone: 312-353-8912
Fax: 312-886-0747

U.S. EPA Region 6

Technical Contact:
Raymond Magyar (6EN-AA)
Air Enforcement Section
US EPA Region 6
1445 Ross Avenue Suite 1200
Dallas, TX 75202
magyar.raymond@epa.gov
Phone: 214-665-7288
Fax: 214-665-3177 or 214-665-7446

Counsel:
Patricia Capps Welton (6RC-EA)
Air/Toxics Enforcement Branch
Office of Regional Counsel
US EPA Region 6
1445 Ross Avenue Suite 1200
Dallas, TX 75202-2733
Welton.patricia@epa.gov
Phone: 214-665-7327
Fax: 214-665-3177

U.S. EPA Region 7

Technical Contact:
Richard Tripp ARTD/APCO
US EPA Region 7
901 N. 5th St.
Kansas City, KS 66101
tripp.richard@epa.gov
Phone: 913-551-7566
Fax: 913-551-9566

Counsel:
Belinda Holmes CNSL/REGE
Senior Assistant Regional Counsel
US EPA Region 7
901 N. 5th St.
Kansas City, KS 66101
holmes.belinda@epa.gov
Phone: 913-551-7714
Fax: 913-551-7925

U.S. EPA Region 8

Technical Contact:
Air Program Director c/o Scott Whitmore (8ENF-AT)
Office of Enforcement, Compliance & Environmental Justice
US EPA Region 8
999 18th Street, Suite 300
Denver, CO 80202-2466
Whitmore.scott@epa.gov
Phone: 303-312-6317
Fax: 303-312-6191

State of Alabama

Payment of penalties:

The check must be made payable to the "Alabama Department of Environmental Management." Please make a notation on the check that it is for the Air Division and mail the check to:

Alabama Department of Environmental Management
Air Division

P.O. Box 301463
Montgomery, AL 36130-1463
Attention: Clai Mullens

Contact person for notices:

Ronald W. Gore
Alabama Department of Environmental Management
Air Division
P.O. Box 301463
Montgomery, AL 36130-1463
rwg@adem.state.al.us
Phone: 334-271-7861
Fax: 334-279-3044

State of Georgia

Payment of penalties:

The check must be made payable to the Georgia Department of Natural Resources and must be mailed to:

Georgia Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, GA 30354, Attn. Lou Musgrove

Contact person for notices:

Lou Musgrove, Program Manager
Stationary Source Compliance Program
Georgia Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, GA 30354
Lou_Musgrove@dnr.ga.state.us
Phone: 404-363-7018
Fax: 404-363-7100

State of Illinois

Payment of penalties:

The check shall be made payable to the "Illinois EPA for deposit into the Illinois

Environmental Protection Trust Fund" and mailed to:

Illinois Environmental Protection Agency
Fiscal Services
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Contact person for notices:
Ms. Julie K. Armitage
Illinois Environmental Protection Agency
Bureau of Air
Compliance and Enforcement Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Julie.Armitage@epa.state.il.us
Phone: 217-782-5811
Fax: 217-782-6348

State of Indiana

Payment of penalties:

Check must be made payable to the "Environmental Management Special Fund." The check must include the case number of this action and shall be mailed to:

Cashier—Mail Code 50-10C
Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, IN 46204-2251

NOTE: The IDEM case numbers assigned to this case are 2005-14673-A (Layfayette) and 2005-14646-A (Hammond). Please place these numbers on the check so the Cashier will post the check to the appropriate account codes.

Contact person for notices:
Matthew Stuckey
Senior Environmental Manager
Office of Enforcement/Air Section – Mail Code 60-02
Indiana Department of Environmental Management

100 N. Senate Ave.
Indianapolis, IN 46204-2251
mstuckey@dem.state.In.us
Phone: 317-233-1134
Fax: 317-233-5968

State of Iowa

Payment of penalties:

The check must be made to the order of "The State of Iowa" and mailed to:

David R. Sheridan
Assistant Attorney General
Environmental Law Division
Lucas State Office Building
321 E. 12th Street, Room 018
Des Moines, IA 50319

Contact person for notices:
Brian Hutchins, Supervisor
Air Compliance Section
Air Quality Bureau, Iowa DNR
7900 Hickman Rd., Suite 1
Urbandale, IA 50322
Brian.Hutchins@DNR.state.ia.us
Phone: 515-281-8448
Fax: 515-242-5094

Linn County, Iowa

Payment of penalties:

Checks must be made to the order of "Linn County Air Quality Division c/o the Linn County Treasurer," and must be mailed to:

Linn County Public Health Department
501 13th St. NW
Cedar Rapids, IA 52405

Contact person for notices:
Gregory D. Slager
Air Pollution Control Officer
Linn County Public Health Department
501 13th St. NW.
Cedar Rapids, IA 52405
Greg.Slager@linncounty.org
Phone: 319-892-6010
Fax: 319-892-6099

Polk County, Iowa

Payment of penalties:

Checks must be made to the order of the "Polk County Treasurer," and mailed to:

Polk County Treasurer
Polk County Air Quality Division
5885 NE 14th Street
Des Moines, IA 50313

Contact person for notices:
Gary Young, Air Quality Engineer
Polk County Air Quality Division
5885 NE 14th Street
Des Moines, IA 50313
gyoung@co.polk.ia.us
Phone: 515-286-3372
Fax: 515-875-5599

State of Missouri

Payment of penalties:

The check must be payable to the State of Missouri, followed by the name of the county, in parentheses, in which the facility is located ("State of Missouri (Clay County)"). The check should be mailed to the attention of:

Jo Ann Hovath

Assistant Attorney General
P.O. Box 899
Jefferson City, MO 65102-0899

Contact persons for notices:

Timothy P. Duggan
Assistant Attorney General
P.O. Box 899
Jefferson City, MO 65102-0899
tim.duggan@ago.mo.gov
Phone: 573-751-9802
Fax: 573-751-8464

Steve Feeler
Air Pollution Control Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102
steve.feeler@dnr.mo.gov
Phone: 573-751-4817
Fax: 573-751-2706

State of Nebraska

Payment of penalties:

The check must be made payable to "Treasurer of Washington County, Nebraska," with the notation "civil penalty," and must be mailed to:

Jodi M. Fenner
Assistant Attorney General
2115 State Capital Building
Lincoln, NE 68509-8920

Contact person for notices:

Shelly Kaderly
Air Division Administrator
1200 "N" Street, Suite 400

P.O. Box 98922
Lincoln, NE 68509-8922
Shelly.kaderly@ndeq.state.ne.us
Phone: 402-471-4299
Fax: 402-471-2909

State of North Carolina

Payment of penalties:

The check shall be made payable to "North Carolina Department of Environment and Natural Resources." Please note that a memo on the check should refer to "STL 2005-001." The check shall be mailed to:

Enforcement Group - Payment
Department of Environment and Natural Resources
Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

Contact person for notices:

Lee A. Daniel, Chief
Technical Services Section
NC Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
Lee.Daniel@ncmail.net
Phone: 919-733-1471
Fax: 919-733-1812

State of North Dakota

Payment of penalties:

The check must be made payable to "North Dakota Department of Health" and mailed to:

Dave D. Glatt, Chief
Environmental Health Section
North Dakota Department of Health
P.O. Box 5520
Bismarck, ND 58506-5520

Contact person for notices:
Benjamin Gress
Division of Air Quality
North Dakota Department of Health
P.O. Box 5520
Bismarck, ND 58506-5520
bgress@state.nd.us
Phone: 701-328-5188
Fax: 701-328-5200

State of Ohio

Payment of penalties:

The check for the portion of the penalty attributable to the Sidney, Ohio facility should be made out to "Treasurer, State of Ohio," and mailed or delivered to:

Amy Laws, Paralegal
Environmental Enforcement Section
Ohio Attorney General's Office
30 Easte Broad, 25th Floor
Columbus, OH 43215-3400

Contact person for notices:

Jim Orlemann, Assistant Chief
SIP Development and Enforcement
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Air Pollution Control
P.O. Box 1049
Columbus, OH 43216-1049
Jim.Orlemann@epa.state.oh.us
Phone: 614-644-3592
Fax: 614-644-3681

Montgomery County/Regional Air Pollution Control Authority (RAPCA):

Payment of penalties:

The check for the portion of the penalty attributable to the Dayton, Ohio facility must be made payable to the "Air Resources Study Trust Fund," and must be mailed to:

Bruno Maier
RAPCA
117 South Main Street
Dayton, OH 45422-1280

Contact person for notices:

John A. Paul
RAPCA Supervisor
117 South Main Street
Dayton, OH 45422-1280
paulja@rapca.org
Phone: 937-225-5948
Fax: 937-225-3486

Memphis/Shelby County, Tennessee:

Payment of penalties:

The check must be made payable to "Memphis and Shelby County Health Department, Pollution Control Section" and should be mailed to:

Memphis and Shelby County Health Department, Pollution Control Section
814 Jefferson Avenue, 4th Floor
Memphis, Tennessee 38105
Attn: Robert Rogers, P.E.

Contact person for notices:

Robert Rogers, P.E.
Technical Manager
Memphis and Shelby County Health Department
Pollution Control Section
814 Jefferson Avenue, 4th Floor
Memphis, Tennessee 38105
brogers@mschdpollution.org
Phone: 901-544-7587 or 7586
Fax: 901-544-7308