

**Iowa Department of Natural Resources
Title V Operating Permit**

Name of Permitted Facility: CertainTeed Gypsum & Ceiling Mfg, Inc.

Facility Location: 2109 Quail Ave., Fort Dodge, IA 50501

Air Quality Operating Permit Number: 99-TV-028R2

Expiration Date: June 19, 2017

Permit Renewal Application Deadline: December 19, 2016

EIQ Number: 92-0844

Facility File Number: 94-01-002

Responsible Official

Name: Dave Rotolo

Title: Plant Manager

Mailing Address: P.O. Box 698, Fort Dodge, IA 50501

Phone #: (515) 576-1133

Permit Contact Person for the Facility

Name: Dave Rotolo

Title: Plant Manager

Mailing Address: P.O. Box 698, Fort Dodge, IA 50501

Phone #: (515) 576-1133

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

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
CE	control equipment
CEM.....	continuous emission monitor
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP.....	emission point
EU	emission unit
ESP.....	Electrostatic Precipitator
gr./dscf	grains per dry standard cubic foot
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS.....	new source performance standard
ppmv	parts per million by volume
lb./hr	pounds per hour
lb./MMBtu	pounds per million British thermal units
SCC.....	Source Classification Codes
scfm.....	standard cubic feet per minute
sf/hr.	square feet per hour
SIC	Standard Industrial Classification
TPY.....	tons per year
USEPA.....	United States Environmental Protection Agency

Pollutants

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: CertainTeed Gypsum & Ceiling Mfg, Inc.

Permit Number: 99-TV-028R2

Facility Description: Gypsum Products Manufacturing (SIC 3275)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP LS	EU C 4000	Land Stripping	NA
EP 002	EU C 4002	Blasting Holes Drilling on Gypsum Rock	NA
EP 003	EU C 4003	Open Gypsum Rock Pile	NA
EP 004	EU C 4004	Gypsum Rock Truck Hauling	NA
EP 008	EU 4303	Covered Gypsum Rock Pile	NA
EP 011	EU 4314	Scalping Screen	NA
	EU 4403	Landplaster Storage Bin A	NA
	EU 4404	Landplaster Storage Bin B	NA
	EU 4405	Landplaster Storage Bin C	NA
	EU 4513	Stucco Surge Tank No. 1	NA
	EU 4514	Stucco Surge Tank No. 2	NA
	EU 5016	Elevator Conveyor for Starch, Vermiculite & Clay	NA
EP 015	EU 5018	Starch Storage Bin	NA
	EU 4401	North Raymond Mill Crushing & Flash Drying	NA
	EU 4402	South Raymond Mill Crushing & Flash Drying	NA
	EU 4501	Calcining Kettle A w/ Hot Pit	NA
	EU 4502	Calcining Kettle B w/ Hot Pit	NA
	EU 4503	Calcining Kettle C w/ Hot Pit	NA
	EU 4507	West Hot Pit Screw Conveyor	NA
	EU 4508	East Hot Pit Screw Conveyor	NA
EP 017	EU 4509	West Hot Pit Elevator	NA
	EU 4510	East Hot Pit Elevator	NA
	EU 5001	West Stucco Bin	75-A-144
	EU 5002	Middle Stucco Bin	75-A-145
	EU 5003	East Stucco Bin	75-A-146
	EU 5017	Screw Conveyor	75-A-147
EP 022 EP 023 EP 092	EU 5019	Vermiculite Storage Bin	NA
	EU 5020	Clay Storage Bin	NA
	EU 5021	Raw Material Feed Screw to Pin Mixer	04-A-356-S1
	EU 5030	Wallboard End Sawing	04-A-357-S1
	EU 5031	Riser Machine	00-A-1094-S3

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP 024	EU 5101	Finished Product Truck Hauling	NA
EP 050	EU 5022	Raw Material Feed Screw	NA
	EU 5023	Raw Material Mixed for Product Formation	NA
EP 091	EU 4306	North Rock Storage Bin	96-A-556-S3
	EU 4307	South Rock Storage Bin	
	EU 4308	North Hammer Mill	
	EU 4309	South Hammer Mill	
	EU 6025	Crusher Feeder	
EU 6026	Diverter Valve		
EP 095	EU C 6037	Portable Reclaim Screen	NA
EP 099	EU 5029	Four Zone Wallboard Dryer	06-A-692

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU 4304	Secondary Crushing
EU 4305	Covered Belt Conveyor
EU 4310	Screw Conveyor
EU 4311	Screw Conveyor
EU 4312	North Bucket Elevator
EU 4313	South Bucket Elevator
EU 4315	North Raymond Mill Feed Bin
EU 4316	South Raymond Mill Fed Bin
EU 4504	Kettle Burner (8.15 MMBtu/hr.)
EU 4505	Kettle Burner (8.15 MMBtu/hr.)
EU 4506	Kettle Burner (8.15 MMBtu/hr.)
EU 4511	East Stucco Screw Conveyor
EU 4512	West Stucco Screw Conveyor
EU 5004	Stucco Screw Conveyor
EU 5005	Stucco Return Bucket Elevator #1
EU 5006	Stucco Return Bucket Elevator #2
EU 5007	Stucco Delivery Bucket Elevator
EU 5008	Stucco Delivery Screen
EU 5009	Landplaster Feed Bin
EU 5010	North Dextrose Bag break Feeder
EU 5011	South Dextrose Bag Break Feeder
EU 5012	North Ball Mill
EU 5013	South Ball Mill
EU 5015	Pneumatic Conveyor
EU 5015b	Accelerator Loss in Weight Feeder
EU 5016b	Bucket Conveyor
EU 5024	Soap Storage Tank
EU 5025	Foam Generator
EU 5026	Bag Hand Feeders
EU 6001	Boiler (1.68 MMBtu/hr.)
EU 6002	Water Heater
EU 6003	22 Air Heater Furnaces
EU 6027	Reclaim Handling
EU 6028	Incline Reclaim Conveyor
EU 6029	Horizontal Reclaim Conveyor
EU 6031	Labelers (2)
EU 6032	UL Labeler
EU 6033	UL Labeler
EU 6034	Paper Heaters (2 at 0.05 MMBtu/hr. each)
EU C 4001	Blasting
EU C 4301	Primary Crushing
EU C 4302	Covered Belt Conveyor
EU C 6035	Reclaim Storage Pile
EU C 6036	Portable Reclaim Crusher
EU C 6038	Paper Pile
EU C 6039	Screened Reclaimed Wallboard Pile

II. Plant-Wide Conditions

Facility Name: CertainTeed Gypsum & Ceiling Mfg, Inc.
Permit Number: 99-TV-028R2

Permit Duration

The term of this permit is: Five (5) years from permit issuance
Commencing on: June 20, 2012
Ending on: June 19, 2017

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 (SO₂): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter:

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"

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"

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, CertainTeed Gypsum& Ceiling Mfg, Inc. 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, CertainTeed Gypsum& Ceiling Mfg, Inc. shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

III. Emission Point-Specific Conditions

Facility Name: CertainTeed Gypsum & Ceiling Mfg, Inc.
 Permit Number: **99-TV-028R2**

Emission Point ID Numbers: EP LS, EP 002, EP 003, EP 004

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP LS	EU C 4000	Land Stripping	NA	Land	400 cubic yards/hr.	NA
EP 002	EU C 4002	Blasting Hole Drilling on Gypsum Rock	NA	Holes	0.62 /hour	NA
EP 003	EU C 4003	Open Gypsum Rock Pile	NA	Gypsum Rock	93 tons/hr.	NA
EP 004	EU C 4004	Gypsum Rock Truck Hauling	NA	Gypsum Rock	3.72 VMT/hr.	NA

Applicable Requirements

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

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

Pollutant: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

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

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 008

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 4303	Covered Gypsum Rock Pile	NA	Gypsum Rock	300 tons/hr.	NA

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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

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

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 011 (All units Vent Inside the Building)

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 4314	Scalping Screen	NA	Landplaster	60 tons/hr.	NA
EU 4403	Landplaster Storage Bin A	CE 003: Baghouse	Landplaster	80 tons/hr.	NA
EU 4404	Landplaster Storage Bin B		Landplaster	80 tons/hr.	NA
EU 4405	Landplaster Storage Bin C		Landplaster	80 tons/hr.	NA
EU 4513	Stucco Surge Tank No. 1	NA	Stucco	60 tons/hr.	NA
EU 4514	Stucco Surge Tank No. 2	NA	Stucco	60 tons/hr.	NA
EU 5016	Elevator Conveyor for Starch, Vermiculite, & Clay	NA	Starch/Clay/Vermiculite	16.67 tons/hr.	NA
EU 5018	Starch Storage Bin	NA	Starch	16.67 tons/hr.	NA

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 %

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

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

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

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
(Required for CE 003)

Compliance Assurance Monitoring (CAM) 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.

The data pertaining to the plan shall be 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: EP 015

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 4401	North Raymond Mill Crushing & Flash Drying	CE 001: Cyclone CE 007: ESP	Gypsum/ Reclaimed Wallboard, Natural Gas/Propane	40 tons/hr., 3.5 MMBtu/hr.	NA
EU 4402	South Raymond Mill Crushing & Flash Drying	CE 002: Cyclone CE 007: ESP	Gypsum/ Reclaimed Wallboard, Natural Gas/Propane	40 tons/hr., 3.5 MMBtu/hr.	NA
EU 4501	Calcining Kettle A w/ Hot Pit	CE 004: Cyclone CE 007: ESP	Landplaster	20 tons/hr.	NA
EU 4502	Calcining Kettle B w/ Hot Pit	CE 005: Cyclone CE 007: ESP	Landplaster	20 tons/hr.	NA
EU 4503	Calcining Kettle C w/ Hot Pit	CE 006: Cyclone CE 007: ESP	Landplaster	20 tons/hr.	NA
EU 4507	West Hot Pit Screw Conveyor	CE 007: ESP	Stucco	60 tons/hr.	NA
EU 4508	East Hot Pit Screw Conveyor	CE 007: ESP	Stucco	60 tons/hr.	NA
EU 4509	West Hot Pit Elevator	CE 007: ESP	Stucco	60 tons/hr.	NA
EU 4510	East Hot Pit Elevator	CE 007: ESP	Stucco	60 tons/hr.	NA

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 %

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

Pollutant: Particulate Matter

Emission Limit(s): 65.72 lb/hr.⁽¹⁾

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

⁽¹⁾ Based on process weight of 380 tons/hr.

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

Monitoring Requirements

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

Stack Testing:

Pollutant – Particulate Matter

1st Stack Test to be Completed by – 6/19/2013

2nd Stack Test to be Completed between – 12/19/2014 and 12/19/2015

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 CE's 001, 002, 004, 005, & 006)

Compliance Assurance Monitoring (CAM) Plan Required? Yes No
(Required for CE 007)

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.

The data pertaining to the plan shall be 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: EP 017 (All units Vent Inside the Building)

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 5001	West Stucco Bin	CE 009: Baghouse	Stucco	60 tons/hr.	75-A-144
EU 5002	Middle Stucco Bin	CE 010: Baghouse	Stucco	60 tons/hr.	75-A-145
EU 5003	East Stucco Bin	CE 011: Baghouse	Stucco	60 tons/hr.	75-A-146
EU 5017	Screw Conveyor	CE 008: Baghouse	Starch/Clay/Vermiculite	16.67 tons/hr.	75-A-147
EU 5019	Vermiculite Storage Bin	NA	Vermiculite	11.10 tons/hr.	NA
EU 5020	Clay Storage Bin	NA	Clay	12.50 tons/hr.	NA

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 %

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

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

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

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
(Required for CE's 009, 010, 011, & 008)

Compliance Assurance Monitoring (CAM) 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.

The data pertaining to the plan shall be 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: EP 022, EP 023, EP 092

Associated Equipment

Emission Unit*	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 5021	Raw Material Feed Screw to Pin Mixer	See Below	Raw Material	60 tons/hr.	See Below
EU 5030	Wallboard End Sawing	See Below	Wallboard	48,000 sf/hr.	See Below
EU 5031	Riser Machine	See Below	Wallboard	5600 sf/hr.	See Below

* All three emission units are able to vent through all three emission points. EP's 022 and 023 are considered to be bypass stacks for EP 092.

Emission Point	Control Equipment	Construction Permit
EP 022	CE 014: Baghouse	04-A-356-S1
EP 023	CE 015: Baghouse	04-A-357-S1
EP 092	CE 030: Cyclone CE 031: Dust Collector	00-A-1094-S3

Applicable Requirements

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

The emissions from these emission points shall not exceed the levels specified below.

Emission Point	Opacity	PM ₁₀	Particulate Matter	Authority for Requirement
EP 022	40% ⁽¹⁾	1.55 lb/hr.	1.55 lb/hr. 0.1 gr/dscf	04-A-356-S1, 567 IAC 23.3(2)"d", 23.3(2)"a"
EP 023	40% ⁽¹⁾	1.55 lb/hr.	1.55 lb/hr. 0.1 gr/dscf	04-A-357-S1, 567 IAC 23.3(2)"d", 23.3(2)"a"
EP 092	40% ⁽¹⁾	3.09 lb/hr.	3.09 lb/hr. 0.1 gr/dscf	00-A-1094-S3, 567 IAC 23.3(2)"d", 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).

Operational Limits & Requirements

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

EP's 022 and 023 (each)

Hours of operation:

1. Emissions may only be vented through these stacks while no emissions are being vented through EP 092.

Reporting & Record keeping:

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

1. A log of the usage of these emission points shall be maintained. This log shall include the time and date of each usage, the duration of each usage, as well as the reason EP 092 is not being used.

Authority for Requirement: Iowa DNR Construction Permits 04-A-356-S1 and 04-A-357-S1

EP 092

Control equipment parameters:

1. The control device shall be inspected and maintained according to manufacturer's instructions and 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. The owner or operator shall maintain a log detailing control device inspections and maintenance activities.

Authority for Requirement: Iowa DNR Construction Permit 00-A-1094-S3

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
EP 022	35	22 x 18	6600	Ambient	Horizontal	04-A-356-S1
EP 023	35	22 x 18	6600	Ambient	Horizontal	04-A-357-S1
EP 092	40	24 (dia)	7000	70	Vertical Obstructed	00-A-1094-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.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No
(Required for CE's 014 and 015)

Compliance Assurance Monitoring (CAM) Plan Required? Yes No
(Required for CE 031)

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.

The data pertaining to the plan shall be 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: EP 024

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 5101	Finished Product Truck Hauling	NA	Truck Traffic	0.42 VMT/hr.	NA

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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

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

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 050 (All units Vent Inside the Building)

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 5022	Raw Material Feed Screw	CE 012: Baghouse	Raw Material	60 tons/hr.	NA
EU 5023	Raw Material Mixed for Product Formation		Raw Material	80 tons/hr.	NA

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 %

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

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

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

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

Compliance Assurance Monitoring (CAM) 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.

The data pertaining to the plan shall be 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: EP 091

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 4306	North Rock Storage Bin	CE 025: Dust Collector	Gypsum Rock	200 tons/hr.	96-A-556-S3
EU 4307	South Rock Storage Bin		Gypsum Rock	200 tons/hr.	
EU 4308	North Hammer Mill		Gypsum/Reclaim Wallboard	30 tons/hr.	
EU 4309	South Hammer Mill		Gypsum/Reclaim Wallboard	30 tons/hr.	
EU 6025	Crusher Feeder		Reclaim Wallboard	10 tons/hr.	
EU 6026	Diverter Valve		Reclaim Wallboard	10 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): 7%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 96-A-556-S3
567 IAC 23.1(2)"bbb"
40 CFR 60.672

⁽¹⁾ In addition, fugitive emissions which escape the capture system from this source shall not exceed 10% opacity (Table 3, 40 CFR 60.672(b)).

Pollutant: PM₁₀

Emission Limit(s): 0.93 lb/hr., 0.022 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 96-A-556-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.93 lb/hr., 0.022 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 96-A-556-S3
567 IAC 23.1(2)"bbb"
40 CFR 60.672

Operational Limits & Requirements

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

Control equipment parameters:

1. The control device shall be inspected and maintained according to manufacturer's instructions and 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. The owner or operator shall maintain a log detailing control device inspections and maintenance activities

Authority for Requirement: Iowa DNR Construction Permit 96-A-556-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 72

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 5000

Exhaust Temperature (°F): 70

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 96-A-556-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 – Particulate Matter

Stack Test to be Completed by – 6/19/2014

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

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 095

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU C 6037	Portable Reclaim Screen	NA	Reject Wallboard	100 tons/hr.	NA

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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

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

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 099

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU 5029	Four Zone Wallboard Dryer	NA	Natural Gas/Propane	0.05 mmcf/hr.	NA

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 06-A-692
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.37 lb/hr.⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 06-A-692

Pollutant: Particulate Matter

Emission Limit(s): 0.37 lb/hr.⁽²⁾, 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 06-A-692
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 06-A-692
567 IAC 23.3(3)"e"

⁽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

Operational Limits & Requirements

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

Process throughput:

1. This wallboard dryer shall combust natural gas or propane only.

Work practice standards:

1. This wallboard consists of four zones with the following characteristics:
 - Zone 1: 1 10 mmBTU/hr burner
 - Zone 2: 1 15 mmBTU/hr burner
 - Zone 3: 1 15 mmBTU/hr burner
 - Zone 4: 1 10 mmBTU/hr burner

Authority for Requirement: Iowa DNR Construction Permit 06-692

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 60

Stack Opening, (inches, dia.): 48

Exhaust Flow Rate (scfm): 42,200

Exhaust Temperature (°F): 328

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 06-A-692

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

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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 rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *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 submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, 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. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. 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 *except* 23.2(3)"j"; 567 IAC 23.2(3)"j" - 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 May 15, 2001.
 - 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 July 21, 1992, 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 applicable requirements of 567 – Chapter 23 or a permit condition.

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
Windsor Heights, IA 50324
(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
Windsor Heights, IA 50324
(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 3

1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 5

401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Polk County Public Works Dept.

Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Field Office 2

2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 4

1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 6

1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Linn County Public Health Dept.

Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

V. Appendix A: Compliance Assurance Monitoring Plans

Compliance Assurance Monitoring (CAM) Plan For Dust Collector

CertainTeed Gypsum and Ceilings Mfg, Inc.
Fort Dodge, Iowa

EP 092 - Riser Machine Stack

Background

Applicability

The dust collector is used to control particulate matter (PM) emissions from the associated CAM emission unit. The potential uncontrolled emissions from the emission unit are greater than or equal to the major source threshold for PM. The dust collector is used to achieve compliance with the emission limitations/standards.

CAM Associated Process/Emission Unites)

ED 5030, Wallboard End Sawing

Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation/Permit Number: 00- A -1094

Emission limit: Refer to 00-A-1094

Current monitoring requirements: None

Control Technology

Control Equipment ID Number: CE 031

Control Equipment Description: Cartridge Dust Collector

Control Equipment Manufacturer: Torit model DFT3-24

Control Equipment Serial Number: I G65 5554-00 I

Control Equipment Installation Date: 2000

Monitoring Approach

Indicators

Parameters to be measured include differential pressure (dP) [inches of water column (in. w.c.)] across the dust collector and visible emissions from the stack.

Measurement Approach

- Periodic monitoring is not required during periods of time greater than one day in which the source does not operate.
- An operator will obtain a daily dP reading (using the local magnehelic) and record the daily dP.
- An operator will make a daily inspection of the stack exhaust to ensure no visible emissions are present and record observations. If weather conditions prevent visible emissions monitoring, the operator will note the weather condition on the record log.
- On a semi-annual basis, maintenance personnel will perform preventive maintenance on the dust collector. The inspection will include an inspection of the filter media, the exterior

integrity, air delivery system, fan, and the differential pressure measuring equipment.

Indicator Ranges

- The facility makes a commitment to take timely corrective action upon observing abnormal conditions, such as visible emissions or monitoring equipment indicators out of range, or during periods of excursion where the indicators are out of range (i.e., dP). An abnormal condition/excursion does not necessarily indicate a deviation/violation of an applicable requirement. A corrective action may include an investigation of the reason for the abnormal condition/excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the abnormal condition/excursion.
- If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with 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.
- The observed differential pressure (dP) across the dust collector is to be within 1.5 in. w.c. of the recent normal operating range. If it is observed to be outside of recent normal operating range +/- 1.5 in. w.c., then corrective action will be taken to determine the cause and correct the abnormal condition/excursion.
- The observed opacity is to be "no visible emissions" (NVE) from the stack. If "visible emissions" are observed, then corrective action will be taken to determine the cause and correct the abnormal condition. If opacity is determined to exceed the permitted opacity limit, then a violation would result.
- Operating with these indicator parameters outside of the normal operating range +/- 1.5 in. w.c. could indicate a change in particulate collection efficiency.

Performance Criteria

Data Representativeness

- A differential pressure that is not within 1.5 in. w.c. of the recent normal operating range could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.
- An observation of "visible emissions" could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.

Verification of Operational Status

- Records will be kept for five years and available upon request.

QA/QC Practices and Criteria

- All instruments and control equipment will be calibrated, maintained and operated according to the manufacturer specifications.
- An adequate spare parts inventory will be maintained.

Data Collection Procedures

- Operators record monitoring readings/observations on a data log.
- Facility maintains a written or electronic record of all readings/inspections and any action resulting from inspections.
- Facility maintains a written or electronic record of all maintenance/inspections performed on the dust collector.

Justification

Background

The dust collector (CE 031) controls PM emissions from the wallboard end sawing emission unit (EU 5030) and other emission units. The dust collector is located in the reclaim building. The controlled exhaust flow rate is approximately 7,000 cubic feet per minute. This unit is not a 'large' CAM source (its post-control PM emissions are less than 100 tons per year).

Rationale for Selection of Performance Indicators

The daily differential pressure (dP) readings were selected as the performance indicator since it is indicative of the dust collector's performance in collecting particulate and thus its compliance with the particulate emission standard.

Rationale for Selection of Indicator Ranges

The selected indicator range is a dP of greater than 1.5 in. w.c. outside the recent normal operating range. This change in dP was selected as the indicator range since a dP of greater than 1.5 in. w.c. outside the recent normal operating range could indicate a reduced performance of a dust collector and a potential increase in particulate emissions.

Test Data

Stack testing for this emissions unit was completed in February 2009 by Metco Environmental. Test results show that this emission unit was operating at an average of .0049 gr/dscf and an average of .29 lbs/hr which are under the "Allowable Emission Rate" of ≤ 0.1 gr/dscf and ≤ 3.09 lbs/hr of Total Particulate Matter.

**Compliance Assurance Monitoring (CAM) Plan
For Electrostatic Precipitator (ESP)**

BPB Manufacturing, Inc.
Fort Dodge, Iowa

EP 015 - Electrostatic Precipitator Stack

Background

Applicability

The Electrostatic Precipitator (ESP) is used to control particulate matter (PM) emissions from the associated CAM emission units. The potential uncontrolled emissions from the emission units are greater than or equal to the major source threshold for PM. The ESP is used to achieve compliance with the emission limitations/standards.

CAM Associated Process/Emission Unites)

ED 440112, North/South Raymond Mill Crushing and Flash Drying

ED 450112/3, Calcining Kettle A/B/C with Hot Pit

ED 450718, East/West Hot Pit Screw Conveyor

ED 4509110, East/West Hot Pit Elevator

Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: 567 IAC 23.3(2)a,d

Emission Limit or Standard: PM; 65.72 lbs/hr PM; 40 opacity

Current Monitoring Requirement: Stack Testing

Control Technology

Control Equipment ID Number: CE 007

Control Equipment Description: Electrostatic Precipitator

Control Equipment Manufacturer: Research Cottrell

Control Equipment Serial Number: 2584

Control Equipment Installation Date: 1957

Monitoring Approach

Indicators

Parameters to be measured include: Primary and secondary a.c. voltage (volts,) primary a.c. amperage (amps), spark rate (sparks/minute), arc rate (arcs/minute), and stack temperature. Refer to the ESP Agency O&M Plan.

Measurement Approach

Data is displayed on visual readouts. Operators observe and record primary and secondary a.c. voltage, primary a.c. amperage, spark rate, arc rate, and stack temperature daily. Operators make daily inspections of rapper operation, transformer-rectifier (T-R) set operation, and the precipitator dust hopper discharge system and record observations. Normal operation is

indicated by a primary voltage of greater than 100 V. Refer to the ESP Agency O&M Plan.

Indicator Ranges

An excursion is defined as a primary voltage at or below 100 V; Abnormal conditions include: T -R set or rapper system failure, T -R set operation at or below 100 V primary voltage, or failure of two rappers. Data excursions/abnormal conditions will trigger a corrective action that may include an investigation of the cause for the abnormal condition/excursion and necessary follow-up action. Refer to the ESP Agency O&M Plan.

Operating with these indicator parameters outside of normal operating ranges could indicate a change in particulate collection efficiency.

Performance Criteria

Data Representativeness

The voltage, amperage, spark rates, and arc rates are measured using the instrumentation provided with the ESP by the manufacturer. These are displayed on the main control panel for the ESP. A voltage reading outside of its recent normal operating range could indicate a decrease in the performance of the ESP and potentially an increase in particulate emissions. Refer to the ESP Agency O&M Plan.

Verification of Operational Status

Records will be kept for five years and available upon request. Refer to the ESP Agency O&M Plan.

QA/QC Practices and Criteria

Refer to the ESP Agency O&M Plan.

Data Collection Procedures

Operators record monitoring readings and observations daily on a data log. Refer to the ESP Agency O&M Plan.

Justification

Background

The ESP is located in the upper level of the gypsum rock milling operations. Exhaust gases containing gypsum dust are collected from three cyclones serving calcining kettles A, B, and C, east and west hot pit conveyors, east and west bucket elevators and the north and south Raymond mill systems. The Raymond mill systems are exhausted to the ESP through the concentrator cyclones by displacing products of combustion and moisture introduced to the systems by the drying process. These units are not "large" CAM sources (their post-control PM emissions are less than 100 tons per year), with the exception of the three calcining kettles.

Rationale for Selection of Performance Indicators

An ESP is a particulate control device that uses electrical forces to move particles entrained within an exhaust stream onto collection surfaces. In an ESP, electric fields are established by applying a voltage across a pair of electrodes, a discharge electrode and a collection electrode.

Particulate matter (PM) suspended in the gas stream is electrically charged by passing through the electric field around each discharge electrode (the negatively charged electrode). The negatively charged particles then migrate toward the positively charged collection electrodes. The PM is separated from the gas stream by retention on the collection electrode. PM is removed from the collection plates by shaking or rapping the plates.

A primary voltage reading indicates proper ESP performance. The primary voltage is a critical indicator of ESP performance when PM and gas stream properties (such as PM concentration and gas flow rate) remain stable and equipment components (such as rappers, plates, wires, hoppers, and transformer-rectifiers) operate satisfactorily.

Further, the secondary voltage drops when a malfunction, such as grounded electrodes, occurs in the ESP. When the secondary voltage drops, less particulate is charged and collected. Also, the secondary voltage can remain high but fail to perform its function if the collection plates are not cleaned, or rapped, appropriately. If the collection plates are not cleaned, the current drops. Secondary voltage is monitored to provide a reasonable assurance that the ESP is functioning properly.

Rationale for Selection of Indicator Ranges

An excursion is defined as a drop in the primary voltage; that is when the primary voltage reading is at or below 100 V. The indicator range for the ESP primary voltage was selected based upon the level indicated from recent operation. A voltage reading outside its recent normal operating range could indicate a reduced performance of the ESP and a potential increase in particulate emissions.

Test Data

A compliance stack test was successfully completed 7/08/2009. The PM stack test results indicated compliance with the applicable emission standards. Normal indicator ranges were observed during the stack test. The test results are available at the facility and at Iowa DNR.

Electrostatic Precipitator Agency O&M

Equipment Description: Electrostatic Precipitator

Equipment Manufacturer: Research Cottrell

Equipment Serial Number: 2584

Equipment Installation Date: 1957

The ESP is located in the upper level of the gypsum rock milling operations. Exhaust gases containing gypsum dust are collected from three cyclones serving calcining kettles A, B, and C, east and west hot pit conveyors, east and west bucket elevators and the north and south Raymond mill systems. The Raymond mill systems are exhausted to the ESP through the concentrator cyclones by displacing products of combustion and moisture introduced to the systems by the drying process.

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. 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 exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with 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 and Corrective Actions

General

- Periodic monitoring is not required during periods of time greater than one day in which the source does not operate.

Continuously

- Audible Precipitator Malfunction Alarm. Primary voltage to the precipitator transformer-rectifier (T -R) is continuously monitored. A voltage reading of 100 volts or less will activate a panel alarm and an audible. Corrective action measures will be implemented on the occurrence of a precipitator malfunction alarm. The appropriate measures for remediation will be implemented within eight hours.

Daily

- Inspection of rapper operation

- Inspection of T-R set operation
- Inspect precipitator dust hopper discharge system

Corrective action measures will be implemented on the occurrence of an abnormal condition. Abnormal conditions will include the following: T - R set or rapper system failure will result in immediate action to shutdown affected operations as expeditiously as possible. Corrections will be made before restart of affected operations. Abnormal T - R set operation (at or below 100 V primary voltage) or failure of two rappers will be investigated within eight hours to determine appropriate remedial actions to be taken and a corrective action plan implemented no later than the next scheduled system shutdown. Failure of the dust discharge system will be investigated immediately. Corrective actions will be implemented within eight hours or action to shutdown affected operations and the precipitator will be taken.

Each Major Unit Overhaul

- Check and correct plate electrode alignment
- Inspect for collection surfaces fouling
- Inspect T-R set mechanical conditions
- Inspect internal structural components
- Inspect discharge electrode conditions including proper cleaning.
- Inspect dust hopper for complete emptying
- Inspect inlet and outlet diffusers for fouling
- Perform all pre-planned corrective actions resulting from daily inspections.

Corrective measures will be devised and implemented on the occurrence of an abnormal condition. The appropriate measures for remediation will be implemented in a timely manner.

Recordkeeping and Reporting

- Daily readings are made and recorded of primary a.c. voltage, primary a.c. amperage, spark rate, arc rate, and stack temperature.
- Maintain a written or electronic record of all monitoring parameters, maintenance and inspections, and corrective actions resulting from inspections.
- Monitoring, maintenance, and inspection records will be kept for five years and available upon request.

Quality Control

- All instruments and control equipment will be calibrated, maintained and operated according to the manufacturer specifications.
- A spare parts inventory is maintained.

Compliance Assurance Monitoring (CAM) Plan For Dust Collector

CertainTeed Gypsum and Ceilings Mfg, Inc.
Fort Dodge, Iowa

EP 091 –Reclaim Stack

Background

Applicability

The dust collector is used to control particulate matter (PM) emissions from the associated CAM emission unit. The potential uncontrolled emissions from the emission unit are greater than or equal to the major source threshold for PM. The dust collector is used to achieve compliance with the emission limitations/standards.

CAM Associated Process/Emission Unites)

EU 6025, Crusher Feeder (Reclaim)

Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation/Permit Number: 00- A -1094

Emission limit: Refer to 00-A-1094

Current monitoring requirements: None

Control Technology

Control Equipment ID Number: CE 025

Control Equipment Description: Cartridge Dust Collector

Control Equipment Manufacturer: Torit model DFT3-18

Control Equipment Serial Number: TG 410517

Control Equipment Installation Date: 1996

Monitoring Approach

Indicators

Parameters to be measured include differential pressure (dP) [inches of water column (in. w.c.)] across the dust collector and visible emissions from the stack.

Measurement Approach

- Periodic monitoring is not required during periods of time greater than one day in which the source does not operate.
- An operator will obtain a daily dP reading (using the local magnehelic) and record the daily dP.
- An operator will make a daily inspection of the stack exhaust to ensure no visible emissions are present and record observations. If weather conditions prevent visible emissions monitoring, the operator will note the weather condition on the record log.
- On a semi-annual basis, maintenance personnel will perform preventive maintenance on the dust collector. The inspection will include an inspection of the filter media, the exterior

integrity, air delivery system, fan, and the differential pressure measuring equipment.

Indicator Ranges

- The facility makes a commitment to take timely corrective action upon observing abnormal conditions, such as visible emissions or monitoring equipment indicators out of range, or during periods of excursion where the indicators are out of range (i.e., dP). An abnormal condition/excursion does not necessarily indicate a deviation/violation of an applicable requirement. A corrective action may include an investigation of the reason for the abnormal condition/excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the abnormal condition/excursion.
- If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with 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.
- The observed differential pressure (dP) across the dust collector is to be within 1.5 in. w.c. of the recent normal operating range. If it is observed to be outside of recent normal operating range +/- 1.5 in. w.c., then corrective action will be taken to determine the cause and correct the abnormal condition/excursion.
- The observed opacity is to be "no visible emissions" (NVE) from the stack. If "visible emissions" are observed, then corrective action will be taken to determine the cause and correct the abnormal condition. If opacity is determined to exceed the permitted opacity limit, then a violation would result.
- Operating with these indicator parameters outside of the normal operating range +/- 1.5 in. w.c. could indicate a change in particulate collection efficiency.

Performance Criteria

Data Representativeness

- A differential pressure that is not within 1.5 in. w.c. of the recent normal operating range could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.
- An observation of "visible emissions" could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.

Verification of Operational Status

- Records will be kept for five years and available upon request.

QA/QC Practices and Criteria

- All instruments and control equipment will be calibrated, maintained and operated according to the manufacturer specifications.
- An adequate spare parts inventory will be maintained.

Data Collection Procedures

- Operators record monitoring readings/observations on a data log.
- Facility maintains a written or electronic record of all readings/inspections and any action resulting from inspections.
- Facility maintains a written or electronic record of all maintenance/inspections performed on the dust collector.

Justification

Background

The dust collector (CE 025) controls PM emissions from the North and South Rock Storage Bins (EU 4306, EU 4307), the North and South Hammermills (EU 4308, EU 4309), and the wallboard recycling system (EU 6025, EU 6026). The dust collector is located in the Mill building. The controlled exhaust flow rate is approximately 2,750 cubic feet per minute. This unit is not a 'large' CAM source (its post-control PM emissions are less than 100 tons per year).

Rationale for Selection of Performance Indicators

The daily differential pressure (dP) readings were selected as the performance indicator since it is indicative of the dust collector's performance in collecting particulate and thus its compliance with the particulate emission standard.

Rationale for Selection of Indicator Ranges

The selected indicator range is a dP of greater than 1.5 in. w.c. outside the recent normal operating range. This change in dP was selected as the indicator range since a dP of greater than 1.5 in. w.c. outside the recent normal operating range could indicate a reduced performance of a dust collector and a potential increase in particulate emissions.

Test Data

Stack testing for this emissions unit was completed in March 2009 by Metco Environmental. Test results show that this emission unit was operating at an average of .0054 gr/dscf and an average of .12 lbs/hr which are under the "Allowable Emission Rate" of ≤ 0.022 gr/dscf and ≤ 0.93 lbs/hr of Total Particulate Matter.