

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

Name of Permitted Facility: Clow Valve Company-Plant 1 Foundry

**Facility Location: 1607 17th Avenue E
Oskaloosa, Iowa 52577**

Air Quality Operating Permit Number: 10-TV-002R1-M001

Expiration Date: December 6, 2020

Permit Renewal Application Deadline: June 6, 2020

EIQ Number: 92-3484

Facility File Number: 62-01-001

Responsible Official

Name: Mark Willett

Title: General Manager

**Mailing Address: 902 South Second Street
Oskaloosa, IA 52577**

Phone #: 641-673-8611

Permit Contact Person for the Facility

Name: Doug Stracke

Title: Environmental Manager

**Mailing Address: 902 South Second Street
Oskaloosa, IA 52577**

Phone #: 641-673-8611

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. Two Title V Permits are being issued for Clow Valve Company (one stationary source). This permit is for the foundry portion of the facility. A separate Title V permit covers the Machine shop.

For the Director of the Department of Natural Resources

Lori Hanson, 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
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
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: Clow Valve Company-Plant 1 Foundry

Permit Number: [10-TV-002R1-M001](#)

Facility Description: Gray and Ductile Iron Foundries (SIC 3321)

Equipment List

A. Iron Foundry

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-001	EU-001	Electric Arc Furnace	74-A-069-S2
EP-002	EU-002	Electric Arc Furnace	05-A-877-S1
EP-010	EU-008A	Iron Shotblasting	06-A-400-S7
	EU-008B	Iron Shotblasting	
	EU-010	12 Grinding Stations	
	EU-010B	Touch-Up Wire Welding	
EP-009	EU009A	Sand Handling Muller	04-A-956-S3
	EU009B	Sand Handling Muller	
	EU009C	Return Sand Elevator (North)	
	EU009E	Iron Sand System	
EP-011	EU-011B	Side Floor Shakeout	96-A-561-S3
	EU-011C	Return Sand Elevator (South)	
	EU-011D	Punchout	
	EU-011E	Didion	
EP-011F-F	EU-011-F(PM)	Side Floor Molding (Particulate Emissions)	N/A
	EU-011-F(VOC)	Side Floor Molding (VOC Emissions)	
EP-022A	EU-022	Mold Pouring and Cooling	06-A-407-S1
EP-022B			06-A-408-S1
EP-022C			06-A-409-S1
EP-022B-F	EU-022B	Side Floor Mold Pouring Into Green Sand Molds and Cooling	N/A
	EU-022B(PUNB)	Side Floor Mold Pouring Into No Bake Molds and Cooling	
	EU-022B(PUNB)-HAP	Side Floor Mold Pouring Into No Bake Molds and Cooling	
EP-037	EU-021	West Holding Furnace	08-A-250-S1
	EU-023	East Holding Furnace	
	EU-HMT	Hot Melt Transfer	

B. Brass Foundry

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-013	EU-013	Shotblast	98-A-627-S4
	EU-013A	Robotic Brass Cutoff Saw	
	EU-013B	Manual Brass Cutoff Saw	
EP-024	EU-024A	Brass Sand Muller	94-A-502-S3
	EU-024B	Side Floor Shakeout	
	EU-024D	Didion	
	EU-024E	Return Sand Conveyor	
	EU-024F	Triple Screen	
	EU-024G	Side Floor Molding, Pouring, Cooling and Shakeout	
EP-028	EU-028	Mold Pouring and Cooling	94-A-501-S3
EP-029			06-A-410-S1
EP-028B-F	EU-028B	Side Floor Mold Pouring Into Green Sand Molds and Cooling	N/A
	EU-028B(PUNB)	Side Floor Mold Pouring Into No Bake Molds and Cooling	
	EU-028B(PUNB)-HAP	Side Floor Mold Pouring Into No Bake Molds and Cooling	
EP-032	EU-032A	Electric Induction Furnace A	98-A-628-S4
	EU-032B	Electric Induction Furnace B	
	EU-032C	Electric Induction Furnace C	
	EU-032D	Electric Induction Furnace D	
	EU-032E	South Pour Line	
EP-036	EU-036	Brass Finish Grinding	07-A-493

C. Core Machines

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-019	EU-019	Shell Core Machines	06-A-405-S1
EP-020	EU-020	No Bake Core Machines	06-A-406-S2
EP-030	EU-030A	Laempe Sand Handling Silo	95-A-114-S3
	EU-030B	Laempe Sand Day Tank	
	EU-039A	Laempe Sand Day Tank	
EP-031	EU-031	Laempe Core Making	06-A-411-S3
EP-039	EU-039	Laempe Core Making	11-A-251
EP-038	EU-038	Sinto Core Machine	10-A-303-S1
	EU-038 (VOC)	Sinto Core Machine (VOC)	

D. Emergency Generators

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-GEN1	EU-GEN1	Brass Furnace Back-Up Generator	N/A
EP-GEN2	EU-GEN2	Back Flow Preventer Generator	N/A

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
BR-VAC	Small Internal Vacuum System
EU-009D	North Storage Bins
EU-014	No Bake Sand Silo
EU-014A	No Bake Transfer to Holding Tank
EU-014B	No Bake Transfer to Holding Tank
EU-015	Iron Bond Sand Silo
EU-016	Inactive Silo
EU-017	Inactive Silo
EU-033A	Iron Bond Day Tank (West)
EU-033B	Iron Bond Day Tank (East)
EU-034	Brass Bond Day Tank
EU-035	Brass Bond Silo
EU-PH	Plant Heating (approx 75 natural gas heaters, all smaller than 10MMBtu/hr)
EU-BCT	Brass Cooling Tower
EU-019Heat	Shell Core Heaters (total) (natural gas-fired, all smaller than 10 MMBtu/hr)
EU-031Heat	Laempe Core Heater (natural gas-fired, smaller than 10 MMBtu/hr)
EU-BLH	Brass Ladle Heaters (natural gas-fired, all smaller than 10 MMBtu/hr)
EU-ILH	Iron Ladle Heaters (natural gas-fired, all smaller than 10 MMBtu/hr)
EU-TANK1	Diesel Tank (300 gal)
EU-TANK2	Used Oil Tank (500 gal tank)
EU-ROADWAY	Unpaved Roadways
EU-040	Sinto Sand Silo
EU-041	Iron Bond Silo
EU-AMCT	Arc Melt Cooling Tower
EU-RW	Repair Welding
EU-POM	Pinker Omega Mixer
EU-MC	Miscellaneous Chemical Usage
EU-BB	Bead Blaster
EU-AER	Aerosol Can Purge
EU-CO2	CO2 Tank
EU-VAC	Brass Area Vacuum

II. Plant-Wide Conditions

Facility Name: Clow Valve Company-Plant 1 Foundry
Permit Number: [10-TV-002R1-M001](#)

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

Permit Duration

The term of this permit is: Five (5) years.
Commencing on: December 7, 2015
Ending on: December 6, 2020

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 - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits 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 roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) 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 public 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 be 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, fertilizer 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.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

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

Additional Emission Limits: Facility-Wide

For each building or structure housing any iron and steel foundry emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

Authority for Requirement: 40 CFR 63.7690(a)(7)

Facility Periodic Opacity Monitoring

Clow Valve shall have a certified smoke reader conduct a standard EPA Method 9 observation for emissions in the building housing the iron and steel foundry no less frequently than once every 6 months.

Authority for Requirement: 40 CFR 63.7731(b)
567 IAC 22.108(14)

NESHAP

Several sources from the Iron Foundry are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR §63.7680 through 40 CFR §63.7765 and Subpart A-General Provisions as specified in 40 CFR §63.7760. Clow Valve Company must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Clow Valve Company. Applicable Subpart EEEEE requirements are incorporated into the Emission–Point Specific Conditions Section.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(3)"de"

III. Emission Point-Specific Conditions

Facility Name: Clow Valve Company-Plant 1 Foundry
 Permit Number: [10-TV-002R1-M001](#)

Emission Point ID Number: EP-001 & EP-002

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Electric Arc Furnaces
 Emissions Control Equipment ID Number: See Table: Electric Arc Furnaces
 Emissions Control Equipment Description: See Table: Electric Arc Furnaces

Table: Electric Arc Furnaces

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity
EP-001	EU-001	Electric Arc Furnace	CE-001	Baghouse	Scrap Iron & Steel	7 tons/hr
EP-002	EU-002	Electric Arc Furnace	CE-002	Baghouse	Scrap Iron & Steel	7 tons/hr

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.

Table: Electric Arc Furnaces-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit 567 IAC 23.3(2)"d"	PM Limit (gr/dscf) 40 CFR 63.7690(a)(1) 567 IAC 23.3(2)"d"	PM ₁₀ Limit (lb/hr)	Total Metal HAP ⁽²⁾ (gr/dscf) 40 CFR 63.7690(a)(1) 567 IAC 23.3(2)"d"	Authority for Requirement (Construction Permit Number)
EP-001	EU-001	40% ⁽¹⁾	0.005 ⁽²⁾	1.50	0.0004 ⁽²⁾	74-A-069-S2
EP-002	EU-002	40% ⁽¹⁾	0.005 ⁽²⁾	1.50	0.0004 ⁽²⁾	05-A-877-S1

⁽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⁾ The emissions source shall comply with either the emission limit for PM or the emission limit for Total Metal HAPs per §63.7690(a)(1).

Operational Limits & Requirements

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

Process throughput:

1. Arc Furnaces (EU 001 and EU 002) are limited to processing a total of 46,600 tons of iron per rolling 12-month period.

Authority for Requirement: DNR Construction Permits 74-A-069-S2 (EP-001) and
05-A-877-S1 (EP-002)

Control equipment parameters:

1. As specified in §63.7710(b), Clow Valve Company must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to an emission limit in §63.7690(a). Which includes but is not limited to the following:
 - a. As specified in §63.7710(b)(3), preventative maintenance plan for Baghouses (CE 001 and CE-002), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
 - b. As specified in §63.7710(b)(4), a site-specific monitoring plan for each bag leak detection system. The owner and operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all the items identified in paragraphs (b)(4)(i) through (v) of §63.7710(b)(4).
 - c. As specified in §63.7710(b)(5), corrective action plans for Baghouses (CE 001 and CE 002). The plans must include the requirement that, in event a bag leak detection system alarm is triggered, Clow Valve Company must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon practicable.
2. As specified in §63.7741(b), Clow Valve Company must install, operate, and maintain a bag leak detection system for each baghouse according to the requirements in paragraphs (b)(1) through (7) of §63.7741(b).

Work practice standards:

1. As specified in §63.7700, Clow Valve Company must comply with the certification requirements in paragraph (b) of §63.7700 or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of §63.7700.

Reporting & Record keeping: *Clow Valve Company must keep each record onsite for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report and record. As specified in §63.7745(b), Clow Valve Company must keep all operation and maintenance plans required by NESHAP Subpart EEEEE for the life of the iron foundry or until the iron foundry is no longer subject to the requirements of NESHAP Subpart EEEEE.*

1. Record on a monthly basis, the total amount of iron processed in Arc Furnaces (EU 001 and EU 002) in tons. Calculate and record rolling 12-month totals.
2. As specified in §63.7740(b), Clow Valve Company must at all times monitor the relative

change in PM loading using a bag leak detection system according requirements in §63.7741(b) and conduct inspections according to the requirements specified in (b)(1) through (8) of §63.7740(b). Requirements of (b)(1) through (8) of §63.7740(b) are specified below:

- a. As specified in §63.7740(b)(1), monitor the pressure drop across each cell of Baghouses (CE 001 and CE002) each day to ensure pressure drop is in normal operating range identified in manual.
 - b. As specified in §63.7740(b)(2), confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
 - c. As specified in §63.7740(b)(3), check compressed air supply for pulse-jet baghouses each day.
 - d. As specified in §63.7740(b)(4), monitor cleaning cycles to ensure proper operation using appropriate methodology.
 - e. As specified in §63.7740(b)(5), check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
 - f. As specified in §63.7740(b)(6), make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or lying on their sides.
 - g. As specified in §63.7740(b)(7), confirm the physical integrity of Baghouses(CE 001 and CE 002) through quarterly visual inspections of Baghouse (CE 001 and CE 002) interior for air leaks.
 - h. As specified in §63.7740(b)(8), inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.
3. As specified in §63.7743(c)(1), maintain records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time owner/operator initiate corrective action, the corrective action taken, and the date on which corrective action was completed.
 4. As specified in §63.7743(c)(2), inspect and maintain Baghouses (CE 001 and CE 002) according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.
 5. As specified in §63.7744, Clow Valve Company must maintain records that document continuous compliance with certification requirements in §63.7700(b) or with procedures in scrap selection and inspection plan required in 63.7700(c). Records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.
 6. As specified in 63.7745(a)(2), record all information needed to document conformance with preventive maintenance plan required by §63.7710(b)(3).
 7. As specified in 63.7745(a)(3), record all information needed to document conformance with site specific monitoring plan required by §63.7710(b)(4).
 8. As specified in 63.7745(a)(4), record all information needed to document conformance with corrective action plan required by §63.7710(b)(5).
 9. As specified §63.7752(a), Clow Valve Company must keep the records specified in paragraphs (a)(1) through (4) of §63.7752(a).
 10. As specified in §63.7752(c), Clow Valve Company must keep records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emission

limitation, work practice standard, and operation and maintenance requirement that applies.

Authority for Requirement: 40 CFR 63 Subpart EEEEE
567 IAC 23.1(4)"de"
DNR Construction Permits 74-A-069-S2 (EP-001) and
05-A-877-S1 (EP-002)

NESHAP Applicability

Arc Melt Furnaces EU-001 and EU-002 are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681. Clow Valve Company must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Clow Valve Company. The Arc Melt Furnaces are also subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Authority for Requirement: 40 CFR 63 Subpart EEEEE
567 IAC 23.1(4)"de"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 55

Stack Opening, (inches, dia.): 48

Exhaust Flow Rate (scfm): 34,111

Exhaust Temperature (°F): 120

Discharge Style: Vertical Unobstructed Discharge

Authority for Requirement: DNR Construction Permits 74-A-069-S2 (EP-001) and
05-A-877-S1 (EP-002)

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing:

Pollutant - Particulate Matter⁽¹⁾

Stack Test to be Completed by – October 25, 2016 and thereafter no less frequently than every five (5) years

Test Method – 40 CFR 60 Appendix A Method 5

Authority for Requirement – 40 CFR 63.7731(a)

Pollutant – Total Metal HAP⁽¹⁾

Stack Test to be Completed by – October 25, 2016 and thereafter no less frequently than every five (5) years

Test Method – 40 CFR 60 Appendix A Method 29

Authority for Requirement – 40 CFR 63.7731(a)

⁽¹⁾ As required by §63.7731, Clow Valve Company must conduct subsequent performance tests to demonstrate compliance with all applicable PM or Total Metal HAP emission limitations.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required?* Yes No

* Compliance with 40 CFR 63 Subpart EEEEE requirements constitutes compliance demonstration. Therefore no CAM plan is needed for these units at this time.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-010

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Iron Shotblasting
 Emissions Control Equipment ID Number: See Table: Iron Shotblasting
 Emissions Control Equipment Description: See Table: Iron Shotblasting

Table: Iron Shotblasting

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity
EU-008A	Iron Shotblasting	CE-010	Baghouse	Raw Castings	6,000 lb/load
EU-008B	Iron Shotblasting			Raw Castings	6,000 lb/load
EU-010	12 Grinding Stations			Iron	13.5 tons/hr
EU-010B	Touch-Up Wire Welding			Wire	17.8 m/min

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit [06-A-400-S7](#)

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 1.34 lb/hr

Authority for Requirement: DNR Construction Permit [06-A-400-S7](#)

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr/dscf

Authority for Requirement: 567 IAC 23.4(6)

DNR Construction Permit [06-A-400-S7](#)

Pollutant: PM₁₀

Emission Limit(s): 1.34 lb/hr

Authority for Requirement: DNR Construction Permit [06-A-400-S7](#)

Operational Limits & Requirements

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

Process throughput:

1. The **maximum average** hourly production rate of the Iron Shot Blasting emission units (EU-008A and EU-008B) shall not exceed 5.0 tons per hour per emission unit **calculated on a daily basis**.
2. The **maximum average hourly metal throughput** for the 12 Grinding Stations (EU-010) shall not exceed 13.5 tons of metal per hour **calculated on a daily basis**.
3. The maximum electrode usage of the touch-up welding unit shall not exceed 500 pounds per year.

Control equipment parameters:

1. The baghouse shall be maintained in accordance with the manufacturer's recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. The owner or operator shall keep the following daily records for the Iron Shot Blasting emission units (EU-008A and EU-008B) **and the 12 Grinding Stations (EU-010)**:
 - a. The number of hours each unit operated.
 - b. The total amount of metal processed (i.e., tons) per unit.
 - c. No later than 7 days after the end of each month, the owner or operator calculate the daily average production rate in tons per hour for each day of the previous month. The daily average production rate shall be calculated by dividing the total amount of metal processed by this unit for a given day by the number of hours the unit operated for that day.
2. The owner or operator shall maintain a record of all inspections of the control equipment (CE-010). The owner or operator shall document the results of the inspections and note any repairs that were the result of the inspections.
3. The owner or operator shall keep record of electrode usage of the touch-up welding unit on a 12-month rolling basis.

Authority for Requirement: Iowa DNR Construction Permit [06-A-400-S7](#)

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 57

Stack Opening, (inches, dia.): 53

Exhaust Flow Rate (scfm): 28,000 - 63,000

Exhaust Temperature (°F): 85

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit [06-A-400-S7](#)

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by December 6, 2017
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51, Appendix M Method 202
Authority for Requirement - 567 IAC 22.108(3)

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

See applicable CAM requirements for EP-010.

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan

CAM Plan for EP-010 Baghouse

I. Background

A. Emissions Unit

Description: Iron Grinding
 Identification: EP-010
 Facility: Clow Valve Company – Plant 1 Foundry
 1607 17th Avenue E
 Oskaloosa, Iowa 52577

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Construction Permit: [06-A-400-S7](#)
 Particulate emission limit: PM/PM₁₀: 1.34 lb/hr and PM: 0.05 gr/dscf
 Current Monitoring requirements: Alarm of the Bag Leak Detection System

C. Control Technology

Pulse Jet Baghouse operated under negative pressure

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A.

Table A – Monitoring Approach

(If this electrostatic induction bag leak detection is out of service, an alternative monitoring approach listed in Table B should be used)

	Indicator Details
I. Indicator	An alarm system will be used as an indicator.
A. Measurement Approach	Measured electrostatic induction is continuously monitored while the exhaust fan associated with EP-010 is operating.
II. Indicator Range	A CAM excursion is defined as when the alarm system is triggered. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
III. Performance Criteria	
A. Data Representativeness	The alarm system will sound when a potential leak is detected (i.e. 50% of the recommended set point has been reached).
B. Verification of Operational Status	The record of excursion events (including alarms and system shut downs) will be kept for five years.
C. QA/QC Practices and Criteria	The bag leak detection system must be installed, operated, calibrated and maintained in a manner

	<p>consistent with the manufacturer’s guidelines and specifications.</p> <p>The bag leak detection system must be equipped with an alarm system that will sound automatically when the measured induction (picoamps) exceed 50% of the manufacturer set point. The alarm must be located where it is easily heard by plant operating personnel. The facility will document preventive maintenance conducted on the bag leak detection system. These records will be maintained for a period of 5 years. The facility will document any excursion events (including alarms and system shut downs) and maintain this record for a period of 5 years.</p>
D. Monitoring Frequency	Continuously.
E. Data Collection Procedures	The bag leak detection system shall operate when the exhaust fan associated with EP-010 is operating. Records of equipment shutdowns shall be maintained for five years.

Table B – Alternative Monitoring Approach
(If this electrostatic induction bag leak detection is out of service, an alternative monitoring approach listed in Table B should be used)

	Indicator Details
I. Indicator	Visible Emissions
A. Measurement Approach	Visible emissions from baghouse exhaust while all units venting to EP-010 are operating.
II. Indicator Range	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a visible emissions observation similar to Method 22.
III. Performance Criteria	
A. Data Representativeness	Visible emissions observations are made at the emission point.
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	The observer will be trained by Clow Valve Company – Plant 1 Foundry to detect visible emissions.
D. Monitoring Frequency	No visible emissions (NVE) observations are made at the emission point on a daily basis.
E. Data Collection Procedures	Results of “no visible emissions” observations are recorded on the visible emissions log. These forms will be kept a minimum of 5 years.

Emission Point ID Number: EP-009 & EP-011

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Iron Sand Systems

Emissions Control Equipment ID Number: See Table: Iron Sand Systems

Emissions Control Equipment Description: See Table: Iron Sand Systems

Table: Iron Sand Systems

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons in system/hr)
EP-009	EU-009A	Sand Handling Muller	CE-009	Baghouse	Sand, Chemicals	140
	EU-009B	Sand Handling Muller				
	EU-009C	Return Sand Elevator (North)				
	EU-009E	Iron Sand Day Tank				
EP-011	EU-011B	Side Floor Shakeout	CE-011	Baghouse	Sand, Chemicals	140
	EU-011C	Return Sand Elevator (South)				
	EU-011D	Punchout				
	EU-011E	Didion				

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.

Table: Iron Sand Systems-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit 567 IAC 23.3(2)"d"	PM Limit (lb/hr)	PM ₁₀ Limit (lb/hr)	Authority for Requirement (Construction Permit Number)
EP-009	EU-009A	40% ⁽¹⁾	0.38	0.38	04-A-956-S3
	EU-009B				
	EU-009C				
	EU-009E				
EP-011	EU-011B	40% ⁽¹⁾	2.10	2.10	96-A-561-S3
	EU-011C				
	EU-011D				
	EU-011E				

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

DNR Construction Permits specified in Table: Iron Sand Systems-
Emission Limits

Operational Limits & Requirements

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

Process throughput:

1. The maximum sand throughput for each system shall not exceed 90 tons of sand per hour.

Control equipment parameters:

1. The baghouses shall be maintained in accordance with the manufacturer’s recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. Maintain a copy of the baghouse manufacturer’s recommendation for the maintenance schedule for the baghouse.
2. Maintain a log of all maintenance activities on the baghouses.
3. At the end of each day, record the total amount of sand processed at each sand system during the working day.
4. At the end of each day, record the number of hours each sand system operated during the working day.
5. No later than seven days after the end of each month, calculate the daily average sand processing rate, in tons per hour, for each day of the previous month by dividing the total amount of sand processed by this system for a given day by the number of hours the unit operated during that day.

Authority for Requirement: DNR Construction Permits specified in Table: Iron Sand Systems-
Emission Limits

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Table: Iron Sand Systems – Emission Point Characteristics

Emission Point Number	Associated Emission Unit Number	Construction Permit No.	Stack Characteristics				Discharge Style
			Height (feet)	Diameter (inches)	Exhaust Flowrate (scfm)	Exhaust Temp. (°F)	
EP-009	EU-009A	04-A-956-S3	40	50	40,150	70	Vertical Unobstructed
	EU-009B						
	EU-009C						
	EU-009E						
EP-011	EU-011B	96-A-561-S3	40	54	52,000	100	Vertical Unobstructed
	EU-011C						
	EU-011D						
	EU-011E						

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing: EP-011 only

- Pollutant – Particulate Matter (PM)
- Stack Test to be Completed by December 6, 2017
- Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51, Appendix M Method 202
- Authority for Requirement - 567 IAC 22.108(3)

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

See applicable CAM requirements for EU-011.

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan

CAM Plan for EP-011 Baghouse

I. Background

A. Emissions Unit

Description: Iron Side Floor Shakeout
 Identification: EP-011
 Facility: Clow Valve Company – Plant 1 Foundry
 1607 17th Avenue E
 Oskaloosa, Iowa 52577

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Construction Permit: 96-A-561-S3
 Particulate emission limit: PM/PM₁₀: 2.10 lb/hr and PM: 0.1 gr/dscf

Current Monitoring requirements:

1. stack testing
2. daily opacity (no visible emissions) readings

C. Control Technology

Pulse Jet Baghouse operated under negative pressure

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are baghouse module differential pressure and visible emissions.

Table A – Monitoring Approach

Indicator Details	
I. Indicator	Visible Emissions
A. Measurement Approach	Visible emissions from baghouse exhaust while all units venting to EP-011 are operating.
II. Indicator Range	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a visible emissions observation similar to Method 22.
III. Performance Criteria	
A. Data Representativeness	Visible emissions observations are made at the emission point.
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	The observer will be trained by Clow Valve Company – Plant 1 Foundry to detect visible emissions.

D. Monitoring Frequency	No visible emissions (NVE) observations are made at the emission point on a daily basis.
E. Data Collection Procedures	Results of “no visible emissions” observations are recorded on the visible emissions log. These forms will be kept a minimum of 5 years.

Emission Point ID Number: EP-011F-F

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Side Floor Mold Making

Table: Side Floor Mold Making

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (lb/hr)
EP-011F-F	EU-011-F(PM)	Side Floor Molding (Particulate Emissions)	Iron	595
	EU-011-F(VOC)	Side Floor Molding (VOC Emissions)	Isopropyl Alcohol	0.21

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.

Pollutant: Opacity

Emission Limit(s): 40%

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

Pollutant: Particulate Matter

Emission Limit(s): 1.82 lb/hr

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

Operational Limits & Requirements

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

There are no limits or requirements at this time.

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-022A, EP-022B, EP-022C, & EP-022B-F

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Mold Pouring and Cooling (Iron)

Table: Mold Pouring and Cooling (Iron)

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (tons/hr)	Construction Permit No.
EP-022A	EU-022	Mold Pouring and Cooling	Molten Iron	12.0	06-A-407-S1
EP-022B					06-A-408-S1
EP-022C					06-A-409-S1
EP-022B-F	EU-022B	Side Floor Mold Pouring Into Green Sand Molds and Cooling	Molten Iron	0.43	N/A
	EU-022B(PUNB)	Side Floor Mold Pouring Into No Bake Molds and Cooling	Molten Iron	0.13	
	EU-022B(PUNB)-HAP	Side Floor Mold Pouring Into No Bake Molds and Cooling	Resin	0.02	

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.

For EP-022A, EP-022B and EP-022C only.

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permits specified in Table: Mold Pouring and Cooling (Iron)

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 1.0 lb/hr (for each emission point)

Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring and Cooling (Iron)

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permits specified in Table: Mold Pouring
and Cooling (Iron)

Pollutant: Particulate Matter
Emission Limit(s): 0.010 gr/dscf⁽²⁾
Authority for Requirement: 40 CFR 63.7690(a)(5)
567 IAC 23.1(4)"de"

⁽²⁾ The emissions source shall comply with either the emission limit for PM or the emission limit for Total Metal HAPs per §63.7690(a)(5).

Pollutant: PM₁₀
Emission Limit(s): 1.0 lb./hr
Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring
and Cooling (Iron)

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 0.22 lb/hr⁽³⁾
Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring
and Cooling (Iron)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limits: 0.07 lb./hr⁽³⁾
Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring
and Cooling (Iron)

Pollutant: Carbon Monoxide (CO)
Emission Limits: 4.5 lb./ton⁽³⁾
Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring
and Cooling (Iron)

⁽³⁾ Emissions limitation applies to the entire pouring and cooling system (EP-022A, EP-022B and EP-022C).

Pollutant: Total Metal HAP
Emission Limit(s): 0.0008 gr/dscf⁽²⁾
Authority for Requirement: 40 CFR 63.7690(a)(5)
567 IAC 23.1(4)"de"

⁽²⁾ The emissions source shall comply with either the emission limit for PM or the emission limit for Total Metal HAPs per §63.7690(a)(5).

For EP-022B-F only.

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

Pollutant: Particulate Matter
Emission Limit(s): 2.78 lb/hr
Authority for Requirement: 567 IAC 23.3(2)"a"

NESHAP Applicability

These units are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681 and to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Operational Limits & Requirements

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

Process throughput:

1. The maximum amount of iron molded of this system shall not exceed 9.6 tons of iron per hour.
2. The total amount of iron poured in the mold pouring area (EP-022A, EP-022B and EP-022C) shall not exceed 46,600 tons of iron per twelve (12) month period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. At the end of each day, record the total amount of iron poured during the working day.
2. At the end of each day, record the number of hours the iron pouring system operated during the working day.
3. No later than seven days after the end of each month, calculate the daily average iron processing rate, in tons per day, for each day of the previous month by dividing the total amount of iron poured during a given day by the number of hours the system operated during that day.
4. At the end of each month, record the amount of iron poured over the previous month.
5. At the end of each month, record the amount of iron poured over the previous twelve (12) months.

Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring and Cooling (Iron)

Emission Point Characteristics For EP-022A, EP-022B and EP-022C only.

These emission points shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 39.6

Stack Opening, (inches, dia.): 49.88

Exhaust Flow Rate (scfm): 31,000

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits specified in Table: Mold Pouring and Cooling (Iron)

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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 (date) – April 10, 2017 and no less frequently than every five (5) years thereafter

Test Method – 40 CFR 60 Appendix A Method 5

Authority for Requirement – 40 CFR 63.7731(a)

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 this 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-037

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Holding Furnaces and Ductile Treatment
Emissions Control Equipment ID Number: See Table: Holding Furnaces and Ductile Treatment
Emissions Control Equipment Description: See Table: Holding Furnaces and Ductile Treatment

Table: Holding Furnaces and Ductile Treatment

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons/hr)
EP-037	EU-021	West Holding Furnace	CE-037	Baghouse	Casting	61.0
	EU-023	East Holding Furnace			Casting	35.0
	EU-HMT	Hot Melt Transfer			Casting	9.6

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.

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 08-A-250-S1

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 0.75 lb/hr

Authority for Requirement: DNR Construction Permit 08-A-250-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

DNR Construction Permit 08-A-250-S1

Pollutant: PM₁₀

Emission Limit(s): 0.75 lb/hr

Authority for Requirement: DNR Construction Permit 08-A-250-S1

Operational Limits & Requirements

Control equipment parameters:

1. The baghouse shall be maintained in accordance with the manufacturer's recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. Maintain a copy of the baghouse manufacturer's recommendation for the maintenance schedule for the baghouse.
2. Maintain a log of all maintenance activities on the baghouse.

Authority for Requirement: DNR Construction Permit 08-A-250-S1

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 55

Stack Opening, (inches, dia.): 39

Exhaust Flow Rate (scfm): 35,715

Exhaust Temperature (°F): 85

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 08-A-250-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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 this 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-013

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Brass Shotblasting and Cutoff

Emissions Control Equipment ID Number: See Table: Brass Shotblasting and Cutoff

Emissions Control Equipment Description: See Table: Brass Shotblasting and Cutoff

Table: Brass Shotblasting and Cutoff

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity
EP-013	EU-013	Shotblast	CE-013	Baghouse	Castings	20 tons/hr
	EU-013A	Robotic Brass Cutoff Saw				
		Manual Brass Cutoff Saw				
	EU-013B	Side Grinding				

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.

Table: Brass Shotblasting and Cutoff

Emission Point Number	Associated Emission Unit Number	Opacity Limit 567 IAC 23.3(2)"d"	PM Limit (lb/hr)	PM ₁₀ Limit (lb/hr)	Pb Limit (lb/hr)	Authority for Requirement (Construction Permit Number)
EP-013	EU-013	40% ⁽¹⁾	0.20	0.20	0.01	98-A-627-S4
	EU-013A					
	EU-013B					

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

DNR Construction Permit 98-A-627-S4

Operational Limits & Requirements

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

Process throughput:

1. The maximum brass throughput of this system shall not exceed 4.5 tons of brass per hour.

Control equipment parameters:

1. The baghouse shall be maintained in accordance with the manufacturer's recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. Maintain a copy of the baghouse manufacturer's recommendation for the maintenance schedule for the baghouse.
2. Maintain a log of all maintenance activities on the baghouses.
3. At the end of each day, record the total amount of brass processed during that working day.
4. At the end of each day, record the number of hours the system operated during that working day.
5. No later than seven days after the end of each month, calculate the daily average sand processing rate, in tons per hour, for each day of the previous month by dividing the total amount of brass processed by this system for a given day by the number of hours the unit operated during that day.

Authority for Requirement: DNR Construction Permit 98-A-627-S4

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 30

Stack Opening, (inches, dia.): 23.5 x 26.5

Exhaust Flow Rate (scfm): 10,000

Exhaust Temperature (°F): Ambient (70)

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 98-A-627-S4

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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 this 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

Associated Emission Unit ID Numbers: See Table: Brass Sand System

Emissions Control Equipment ID Number: See Table: Brass Sand System

Emissions Control Equipment Description: See Table: Brass Sand System

Table: Brass Sand System

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity
EP-024	EU-024A	Brass Sand Muller	CE-024	Baghouse	Sand, Chemicals	70 tons in system/hr
	EU-024B	Side Floor Shakeout				
	EU-024D	Didion				
	EU-024E	Return Sand Conveyor				
	EU-024F	Triple Screen				
	EU-024G	Side Floor Molding, Pouring, Cooling and Shakeout.				

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 94-A-502-S3

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 0.92 lb/hr

Authority for Requirement: DNR Construction Permit 94-A-502-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

DNR Construction Permit 94-A-502-S3

Pollutant: PM₁₀
Emission Limit(s): 0.92 lb/hr
Authority for Requirement: DNR Construction Permit 94-A-502-S3

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 0.16 lb/hr
Authority for Requirement: DNR Construction Permit 94-A-502-S3

Pollutant: Nitrogen Oxides (NO_x)
Emission Limits: 0.05 lb./hr
Authority for Requirement: DNR Construction Permit 94-A-502-S3

Pollutant: Carbon Monoxide (CO)
Emission Limits: 2.04 lb./hr
Authority for Requirement: DNR Construction Permit 94-A-502-S3

Pollutant: Lead (Pb)
Emission Limit(s): 0.04 lb/hr
Authority for Requirement: DNR Construction Permit 94-A-502-S3

Operational Limits & Requirements

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

Process throughput:

1. The maximum throughput of this system shall not exceed 64.8 tons of sand per hour

Control equipment parameters:

1. The baghouse shall be maintained in accordance with the manufacturer's recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. Maintain a copy of the baghouse manufacturer's recommendation for the maintenance schedule for the baghouse.
2. Maintain a log of all maintenance activities on the baghouse.
3. At the end of each day, record the total amount of sand processed during that working day.
4. At the end of each day, record the number of hours the sand system operates during that working day.
5. No later than seven days after the end of each month, calculate the daily average sand processing rate, in tons per hour, for each day of the previous month by dividing the total amount of sand processed by this system for a given day by the number of hours the unit operated during that day.

Authority for Requirement: DNR Construction Permit 94-A-502-S3

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 54
Exhaust Flow Rate (scfm): 55,000
Exhaust Temperature (°F): Ambient (70)
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 94-A-502-S3

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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

See applicable CAM requirements for EP-024.

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan

CAM Plan for EP-024 Baghouse

I. Background

A. Emissions Unit

Description: Brass Sand Muller
 Identification: EP-024
 Facility: Clow Valve Company – Plant 1 Foundry
 1607 17th Avenue E
 Oskaloosa, Iowa 52577

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Construction Permit: 94-A-502-S3
 Particulate emission limit: PM/PM₁₀: 0.92 lb/hr and PM: 0.1 gr/dscf
 Current Monitoring requirements:
 1. stack testing
 2. daily opacity (no visible emissions) readings

C. Control Technology

Pulse Jet Baghouse operated under negative pressure

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are baghouse module differential pressure and visible emissions.

Table A – Monitoring Approach

	Indicator Details
I. Indicator	Visible Emissions
A. Measurement Approach	Visible emissions from baghouse exhaust while all units venting to EP-024 are operating.
II. Indicator Range	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a visible emissions observation similar to Method 22.
III. Performance Criteria	
A. Data Representativeness	Visible emissions observations are made at the emission point.
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	The observer will be trained by Clow Valve Company – Plant 1 Foundry to detect visible emissions.

D. Monitoring Frequency	No visible emissions (NVE) observations are made at the emission point on a daily basis.
E. Data Collection Procedures	Results of “no visible emissions” observations are recorded on the visible emissions log. These forms will be kept a minimum of 5 years.

Emission Point ID Number: EP-028, EP-029 & EP-028B-F

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Mold Pouring and Cooling (Brass)

Emissions Control Equipment ID Number: See Table: Mold Pouring and Cooling (Brass)

Emissions Control Equipment Description: See Table: Mold Pouring and Cooling (Brass)

Table: Mold Pouring and Cooling (Brass)

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons/hr)
EP-028 EP-029	EU-028	Mold Pouring and Cooling	CE-028	Baghouse	Molten Brass	2.9
EP-028B-F	EU-028B	Side Floor Mold Pouring Into Green Sand Molds and Cooling	N/A	N/A	Molten Brass	0.29
	EU-028B(PUNB)	Side Floor Mold Pouring Into No Bake Molds and Cooling			Molten Brass	0.02
	EU-028B(PUNB)-HAP	Side Floor Mold Pouring Into No Bake Molds and Cooling			Resin	0.02

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.

For EP-028 and EP-029 only.

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029)

⁽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).

Pollutant: Particulate Matter
Emission Limit(s): 0.25 lb/hr
Authority for Requirement: DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

Pollutant: PM₁₀
Emission Limit(s): 0.25 lb/hr
Authority for Requirement: DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 0.32 lb/hr⁽²⁾
Authority for Requirement: DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

Pollutant: Nitrogen Oxides (NO_x)
Emission Limits: 0.10 lb/hr⁽²⁾
Authority for Requirement: DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

Pollutant: Carbon Monoxide (CO)
Emission Limits: 5.46 lb./hr⁽²⁾
Authority for Requirement: DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

Pollutant: Lead (Pb)
Emission Limit(s): 0.01 lb/hr
Authority for Requirement: DNR Construction Permits 94-A-501-S3 (EP-028) and
06-A-410-S1 (EP-029).

⁽²⁾ Emission limit applies to the North Pour Line (EP-028 and EP-029)

For EP-028B-F only.

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

Pollutant: Particulate Matter
Emission Limit(s): 1.87 lb/hr
Authority for Requirement: 567 IAC 23.3(2)"a"

Operational Limits & Requirements

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

Process throughput:

1. The maximum throughput of this system shall not exceed 2.00 tons of brass molded per hour.

Note: The amount of brass molded is equivalent to the piece weight of product made.

Control equipment parameters:

1. The baghouse shall be maintained in accordance with the manufacturer's recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. Maintain a copy of the baghouse manufacturer's recommendation for the maintenance schedule for the baghouse.
2. Maintain a log of all maintenance activities on the baghouse.
3. At the end of each day, record the total amount of brass molded during that working day.
4. At the end of each day, record the number of hours the pour line operated during that working day.
5. No later than seven days after the end of each month, calculate the daily average brass processing rate, in tons per hour, for each day of the previous month by dividing the total amount of brass molded for a given day by the number of hours the pour line operated during that day.

Authority for Requirement: DNR Construction Permit 94-A-501-S3 (EP-028) and 06-A-410-S1 (EP-029).

Emission Point Characteristics for EP-028 and EP-029 only.

These emission points shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 49.83

Stack Opening, (inches, dia.): 30

Exhaust Flow Rate (scfm): 18,200

Exhaust Temperature (°F): Ambient (70)

Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 94-A-501-S3 (EP-028) and 06-A-410-S1 (EP-029).

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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 this 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-032

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Electric Induction Furnaces

Emissions Control Equipment ID Number: See Table: Electric Induction Furnaces

Emissions Control Equipment Description: See Table: Electric Induction Furnaces

Table: Electric Induction Furnaces

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity
EP-032	EU-032A	Electric Induction Furnace A	CE-032	Baghouse	Molten Brass	8.3 tons/hr
	EU-032B	Electric Induction Furnace B				
	EU-032C	Electric Induction Furnace C				
	EU-032D	Electric Induction Furnace D				
	EU-032E	South Pour Line				4.16 tons/hr
	EU-032F	Production Heater				750,000 Btu/hr
	EU-032G	Production Heater (dual)				1,500,000 Btu/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit [98-A-628-S4](#)

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 1.63 lb/hr

Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit [98-A-628-S4](#)

Pollutant: PM₁₀
Emission Limit(s): 1.63 lb/hr
Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 0.16 lb/hr
Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limits: 0.05 lb./hr
Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

Pollutant: Carbon Monoxide (CO)
Emission Limits: 4.05 lb./hr
Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

Pollutant: Lead (Pb)
Emission Limit(s): 0.18 lb/hr
Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

Operational Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

Production Limits and Associated Recordkeeping Requirements

- A. The maximum brass throughput of this system shall not exceed 6.3 tons of brass per hour.
 - i. At the end of each day, record the total amount of brass melted during that working day.
 - ii. At the end of each day, record the number of hours the pour line operated during that working day.
 - iii. No later than 7 days after the end of each month, calculate the daily average brass processing rate, in tons per hour, for each day of the previous month by dividing the total amount of brass melted by the pour line for a given day by the number of hours the pour line operated during that day.

- B. The control equipment, CE-032, shall be operated and maintained according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year.

- C. A log of all maintenance and inspection activities performed on the control equipment, CE-032. This log shall include, but is not limited to:
- i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
 - ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved; and,
 - iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved.

Authority for Requirement: Iowa DNR Construction Permit [98-A-628-S4](#)

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 54

Exhaust Flow Rate (scfm): 53,000

Exhaust Temperature (°F): 90

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit [98-A-628-S4](#)

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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 this 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-036

Associated Equipment

Associated Emission Unit ID Numbers: EU-036
Emissions Control Equipment ID Number: CE-036
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-036
Emission Unit Description: Brass Grinding (three stations)
Raw Material/Fuel: Brass Casings
Rated Capacity: 4.0 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 07-A-493

⁽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).

Pollutant: Particulate Matter

Emission Limit(s): 0.60 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-493

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr/dscf

Authority for Requirement: 567 IAC 23.4(6)

DNR Construction Permit 07-A-493

Pollutant: PM₁₀

Emission Limit(s): 0.60 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-493

Operational Limits & Requirements

Control equipment parameters:

1. Maintain Brass Finish Grinding Baghouse (CE-036) according to manufacturer's specifications and maintenance schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- 1. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Brass Finish Baghouse (CE-036).

Authority for Requirement: DNR Construction Permit 07-A-493

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50

Stack Opening, (inches, dia.): 28

Exhaust Flow Rate (scfm): 13,800

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-493

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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 this 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-019 & EP-020

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Core Machines

Table: Core Machines

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity
EP-019	EU-019	Shell Core Machines	Core Making Chemicals and Catalysts, Sand	2.5 tons/hr
EP-020	EU-020	No Bake Core Machines	Core Making Chemicals and Catalysts, Sand	2.0 tons/hr

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.

Table: Core Machines-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit 567 IAC 23.3(2)"d"	PM Limit (lb/hr)	PM ₁₀ Limit (lb/hr)	Authority for Requirement (Construction Permit Number)
EP-019	EU-019	40% ⁽¹⁾	0.44	0.44	06-A-405-S1
EP-020	EU-020	40% ⁽²⁾	1.73	1.73	06-A-406-S2

⁽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⁾ 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).

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

DNR Construction Permits specified in Table: Core Machines-Emission Limits

NESHAP Applicability

These units are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681

Operational Limits & Requirements

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

Process throughput: **For EP-019**

- 1. The total weight of shell cores produced shall not exceed 3,661 tons during any twelve (12) month period, rolled monthly.

Authority for Requirement: DNR Construction Permit 06-A-405-S1

Process throughput: **For EP-020**

- 1. The total weight of no bake cores produced shall not exceed 5,325 tons during any twelve (12) month period, rolled monthly.

Authority for Requirement: DNR Construction Permit 06-A-406-S2

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- 1. At the end of each month, record the total weight of no bake cores produced over the previous month.
- 2. At the end of each month, record the total weight of no bake cores produced over the previous twelve (12) months.

Authority for Requirement: DNR Construction Permits listed in Table: Core Machines- Emission Limits

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-030

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Laempe Sand Handling

Emissions Control Equipment ID Number: See Table: Laempe Sand Handling

Emissions Control Equipment Description: See Table: Laempe Sand Handling

Table: Laempe Sand System

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons/hr)
EP-030	EU-030A	Laempe Sand Handling Silo	CE-030	Baghouse	Sand	24
	EU-030B	Laempe Sand Day Tank				4.5
	EU-039A	Laempe Sand Day Tank				5.5

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 95-A-114-S3

⁽¹⁾ An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit(s): 0.55 lb/hr

Authority for Requirement: DNR Construction Permit 95-A-114-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr/dscf

Authority for Requirement: 567 IAC 23.4(6)

DNR Construction Permit 95-A-114-S3

Pollutant: PM₁₀

Emission Limit(s): 0.55 lb/hr

Authority for Requirement: DNR Construction Permit 95-A-114-S3

Operational Limits & Requirements

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

Control equipment parameters:

- 1. The baghouse shall be maintained in accordance with the manufacturer’s recommendations and schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- 1. Maintain a copy of the baghouse manufacturer’s recommendation for the maintenance schedule for the baghouse.
- 2. Maintain a log of all maintenance activities on the baghouse.

Authority for Requirement: DNR Construction Permit 95-A-114-S3

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 45.4

Stack Opening, (inches, dia.): 3 x 6

Exhaust Flow Rate (scfm): 1,280

Exhaust Temperature (°F): Ambient (70)

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-114-S3

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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-031 & EP-039

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Laempe Core Making

Emissions Control Equipment ID Number: None

Table: Laempe Core Making

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Raw Material	Rated Capacity (tons/hr)
EP-031	EU-031	Laempe Core Making	N/A	Handled Sand	5.0
EP-039	EU-039	Laempe Core Making		Sand	5.5

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.

Table: Laempe Core Making Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit 567 IAC 23.3(2)"d"	PM Limit (lb/hr)	PM Limit State (gr/dscf) 567 IAC 23.3(2)"a"	PM ₁₀ Limit (lb/hr)	Authority for Requirement (Construction Permit Number)
EP-031	EU-031	40% ⁽¹⁾	0.30	0.1	0.30	06-A-411-S3
EP-039	EU-039	40% ⁽¹⁾	0.70	0.1	0.70	11-A-251

⁽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).

Operational Limits & Requirements

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

Process throughput:

For EP-031

1. The maximum sand throughput of this system shall not exceed 5.0 tons of sand per hour.
2. The total combined weight of Laempe sand processed in EU 031 and EU 039 shall not exceed 13,314 tons during any twelve (12) month period, rolled monthly.

For EP-039

1. The maximum iron throughput of this system shall not exceed 5.5 tons of sand per hour.
2. The total combined weight of Laempe sand processed in EU 031 and EU 039 shall not exceed 13, 314 tons during any twelve (12) month period, rolled monthly.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. At the end of each day, record the total amount of sand processed for each system during that working day.
2. At the end of each day, record the number of hours each core making system operated during that working day.
3. No later than seven (7) days after the end of each month, calculate the daily average sand processing rate, in tons per hour, for each day of the previous month by dividing the total amount of sand processed by each system for a given day by the number of hours the unit operated during that day.
4. At the end of each month, record the total combined weight of Laempe cores produced in EU 031 and EU 039 over the previous month.
5. At the end of each month, record the total weight of Laempe cores produced in EU 031 and EU 039 over the previous twelve (12) months.

Authority for Requirement: DNR Construction Permits 06-A-411-S3 and 11-A-251

Emission Point Characteristics

These emission point shall conform to the specifications listed below.

Emission Point Number	Emission Unit Number	Stack Height (ft from the ground)	Stack Opening (inches, dia.)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style
EP-031	EU-031	40	14	5,300	Ambient (70)	Vertical Unobstructed
EP-039	EU-039	40	16	2,700		

Authority for Requirement: DNR Construction Permit 06-A-411-S3 & 11-A-251

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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-038

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Sinto Core Machine

Emissions Control Equipment ID Number: None

Table: Sinto Core Machine

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Raw Material	Rated Capacity (tons/hr)
EP-038	EU-038	Sinto Core Machine	N/A	Handled Sand	2.7
	EU-038 (VOC)	Sinto Core Machine (VOC)			

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 10-A-303-S1

⁽¹⁾ An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit(s): 0.32 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-303-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

DNR Construction Permit 10-A-303-S1

Pollutant: PM₁₀

Emission Limit(s): 0.32 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-303-S1

Operational Limits & Requirements

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

Process throughput:

- 1. The total weight of core making produced shall not exceed 4,000 tons during any twelve (12) month period, rolled monthly.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- 1. At the end of each month, record the total weight of no bake cores produced over the previous month.
- 2. At the end of each month, record the total weight of no bake cores produced over the previous twelve (12) months.

Authority for Requirement: DNR Construction Permit 10-A-303-S1

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 30.2

Stack Opening, (inches, dia.): 14

Exhaust Flow Rate (scfm): 2,400

Exhaust Temperature (°F): Ambient (70)

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 10-A-303-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

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-GEN1

Associated Equipment

Associated Emission Unit ID Numbers: EU-GEN1

Emissions Control Equipment ID Number: None

Emission Unit vented through this Emission Point: EU-GEN1

Emission Unit Description: Brass Furnace Back-Up Generator

Raw Material/Fuel: Natural Gas

Rated Capacity: 41 hp

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.

Pollutant: Opacity

Emission Limit(s): 40 %

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

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide

Emission Limit(s): 500 ppmv

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

Operational Limits & Requirements

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

NESHAP Subpart ZZZZ Requirements

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)
2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations (up to) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing, emergency demand response and periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing and emergency demand response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

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

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-GEN2

Associated Equipment

Associated Emission Unit ID Numbers: EU-GEN2

Emissions Control Equipment ID Number: None

Emission Unit vented through this Emission Point: EU-GEN2

Emission Unit Description: Back Flow Preventer Generator

Raw Material/Fuel: Natural Gas

Rated Capacity: 40 hp

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.

Pollutant: Opacity

Emission Limit(s): 40%

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

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide

Emission Limit(s): 500 ppmv

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

Pollutant: Carbon Monoxide

Emission Limit(s): 387 g/hp-hr

Authority for Requirement: 40 CFR Part 60 Subpart JJJJ
567 IAC 23.1(2) "zzz"

Pollutant: NO_x + HC

Emission Limit(s): 10 g/hp-hr

Authority for Requirement: 40 CFR Part 60 Subpart JJJJ
567 IAC 23.1(2) "zzz"

Operational Limits & Requirements

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

NSPS Subpart JJJJ Requirements

Compliance Demonstrations:

1. You must demonstrate compliance with the emission standards according to one of following methods (40 CFR 60.4243(b)):
 - a) Purchasing a certified engine that complies with the emission standards, or

- b) Purchasing a non-certified engine and demonstrating compliance with the emission standards. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct performance tests to demonstrate compliance in accordance with 40 CFR 60.4244. Owners and operators are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 4243(b) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
25 < HP ≤ 500	Required	Not required

2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer's written instructions must keep records of required maintenance. 40 CFR 60.4243(d)(1) and 4243(a).
3. Owners and operators of natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, a performance test must be conducted to demonstrate compliance with the emission standards. 40 CFR 60.4243(e).
4. If you are an owner or operator of engine ≤ 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing, but you are not required to conduct subsequent performance testing unless the engine is rebuilt or undergoes major repair or maintenance. 40 CFR 60.4243(f).
5. Owners and operators must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).
6. Owners and operators of non-certified engines must keep records of the documentation that these engines meet the applicable emission standards. 40 CFR 60.4245(a)(4).

Operating and Recordkeeping Requirements (40 CFR 4243(d))

1. Owners and operators of the following emergency SI engines that do not meet the applicable standards for non-emergency engines must install a non-resettable hour meter. 40 CFR 60.4237.

Maximum Engine Power	Engine Was Built On Or After
HP < 130	7/1/2008

2. The engine may be operated for the purpose of maintenance checks and readiness testing a maximum of 100 hours/year. There is no time limit on use for emergency situations.
3. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used to generate income for the facility (e.g. supplying power to the

grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing.

4. Owners and operators of an emergency engine must keep records of all operation of the engine. The owner must record the date and time of operation of the engine and the reason the engine was in operation.
5. Owners and operators of the following emergency SI that does not meet the applicable standards for a non-emergency engine must keep the following records. 40 CFR 60.4245(b).

Maximum Engine Power	Manufactured On Or After	Recordkeeping Requirement
25 < HP < 130	7/1/2008	Hours of operation recorded through a non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

Authority for Requirement: 40 CFR Part 60 Subpart JJJJ
567 IAC 23.1(2) “zzz”

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

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"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

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 U.S. EPA Region VII, Attention: Chief of Air Permits, 11201 Renner Blvd., Lenexa, KS 66219. 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) 725-8694 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. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. 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. Initial 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 initial 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 initial report may be made by electronic mail (E-mail), 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 initial 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 situation 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 fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *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 (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
 - e. The changes comply with all applicable requirements.
 - f. For each such 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 does 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 Title V Permit Modification.

- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
 - i. Do not violate any applicable requirement;
 - 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 an 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 under rule 567 - 22.113(455B).

- 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 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, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V 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, as those requirements that apply to Title V issuance and renewal.

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 22.111-567 IAC 22.113*

G19. Duty to Obtain Construction Permits

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *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 (*567 IAC 23.1(3)"a"*); training fires and controlled burning of a demolished building (*567 IAC 23.2*).

G21. Open Burning

The permittee is prohibited from conducting open burning, except as provided in 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. Exceedances 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)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

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 consistent with the requirements of *567 IAC 22.111(1)*. *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. 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. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. 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) 725-9545

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
U.S. EPA Region 7
Air Permits and Compliance Branch
11201 Renner Blvd.
Lenexa, KS 66219
(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) 725-9500

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1

909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2

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

Field Office 3

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

Field Office 4

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

Field Office 5

7900 Hickman Road, Suite #200
Windsor Heights, IA 50324
(515) 725-0268

Field Office 6

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

Polk County Public Works Dept.

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

Linn County Public Health

Air Quality Branch
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

V. Appendix A: NSPS & NESHAP

NSPS

- 40 CFR 60 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
<http://www.ecfr.gov/cgi-bin/text-idx?SID=b490bd8981384320568408ba376ae7a1&node=sp40.7.60.jjjj&rgn=div6>

NESHAP

- 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
<http://www.ecfr.gov/cgi-bin/text-idx?SID=b490bd8981384320568408ba376ae7a1&node=sp40.14.63.zzzz&rgn=div6>
- 40 CFR 63 Subpart EEEEE—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries
http://www.ecfr.gov/cgi-bin/text-idx?SID=b490bd8981384320568408ba376ae7a1&node=sp40.14.63.eeeee&rgn=div6#sg40.14.63_17690.sg36