Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: **Faircast, Inc.**
Facility Location: **905 West Depot**
Fairfield, IA 52556

Air Quality Operating Permit Number: 99-TV-058R3
Expiration Date: March 22, 2025
Permit Renewal Application Deadline: September 22, 2024

EIQ Number: 92-1370
Facility File Number: 51-01-005

Responsible Official
Name: Mr. Ken Ledoux
Title: General Manager
Mailing Address: 905 West Depot, Fairfield, IA 52556
Phone #: (641) 209-4100
Email: k.ledoux@faircastinc.com

Permit Contact Person for the Facility
Name: Ms. Makenzie Zeitler
Title: EHS & Human Resources Manager
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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

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
cu ft/hr.....cubic feet per hour
^{o}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: Faircast, Inc.
Permit Number: 99-TV-058R3

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

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP 101F	EU 101	Scrap Handling; Iron	
EP 201	EU 102	Cupola	92-A-474-S10
EP 240	EU 103, EU 106-Baghouse, EU 110, EU 117C, EU 130, EU 155, EU 156	Two (2) Induction Furnaces, Disa C Mold, Pour & Cool, Disa C Shakeout, Disa C Muller, Disa Sand Return, Disa A & B Muller Bin, Disa C Muller Bin	08-A-222-P1
EP 203	EU 105-Baghouse, EU 108, EU 109, EU 121	Disa A & B Mold, Pour & Cool, 20 x 26 Shakeout, Disa A & B Shakeout, 20 x 26 Automold	95-A-381-S4
EP 235-Vent	EU 105-Vent 235, EU 106-Vent 235	Disa A & B Mold, Pour & Cool, Disa C Mold, Pour & Cool	08-A-223-S1
EP 236-Vent	EU 105-Vent 236, EU 106-Vent 236	Disa A & B Mold, Pour & Cool, Disa C Mold, Pour & Cool	08-A-224-S1
EP 104F	EU 104	Manual Pour & Cool	09-A-506
EP 205	EU 107, EU 118, EU 129, EU 154	Manual Shakeout, Manual Muller, Manual Sand Return, Manual Muller Bin	88-A-014-S3
EP 111F	EU 111, EU 113, EU 114-111F	Tumbler 1; Castings, Tumbler 2; Castings, Grinding; Castings	
EP 112F	EU 112, EU 114-112F	Tumblers 3 & 4; Castings, Grinding; Castings	
EP 114F	EU 114-114F	Grinding; Castings	
EP 208	EU 117AB,	Disa A & B Muller,	95-A-380-S2

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	EU 153	Manual Dump Station	
EP 119F	EU 119	Prepared Sand Transfer	
EP 120F	EU 120	Manual Mold	
EP 122F	EU 122	Resin Sand Storage	
EP 211	EU 123	Core Sand Storage	86-A-043-S2
EP 124F	EU 124	Shell Core Making	09-A-507
EP 238-Exhaust	EU 126-Exhaust 238	Isocure Core Making	05-A-564-S2
EP 239-Exhaust	EU 126-Exhaust 239	Isocure Core Making	05-A-565-S2
EP 147F	EU 147	Haul Road; VMT	
EP 148F	EU 148	Charging Chute; Scrap	
EP 149F	EU 149	Coke Storage Pile	
EP 150F	EU 150	Limestone Storage Pile	
EP 230-Vent	EU 157-Vent 230	Metal Transfers	04-A-386
EP 231-Vent	EU 157-Vent 231	Metal Transfers	04-A-387
EP 232-Vent	EU 157-Vent 232	Metal Transfers	04-A-388
EP 233-Vent	EU 157-Vent 233	Metal Transfers	04-A-389
EP 234-Vent	EU 157-Vent 234	Metal Transfers	04-A-390
EP 158F	EU 158	Yard Traffic	
EP 159F	EU 159	Temporary Sand Storage Pile	
EP 160F	EU 160	Permanent Sand Storage Pile	
EP 161	EU 146	Tumblers 5 & 6	18-A-220
	EU 161A	Autoline Cooler	
	EU 161B	Disa B Cooler	
	EU 161C	Disa A Cooler	
	EU 161D	Disa C Cooler	
EP 152	EU 152	Emergency Generator (400 kW)	15-A-058

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
140	Waste Oil Tank (1,500 gallons capacity)
141	No. 2 Distillate Tank (250 gallons capacity)
142	No. 2 Distillate Tank (250 gallons capacity)
143	No. 2 Distillate Tank (300 gallons capacity)
145	6 Air Make Up Units (5.2 MMBtu/hr each)

II. Plant-Wide Conditions

Facility Name: Faircast, Inc.
Permit Number: 99-TV-058R3

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: March 23, 2020
Ending on: March 22, 2025

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

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

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

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

Particulate Matter:
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 on or 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"

NSPS and NESHAP Applicability

The emissions units of Faircast, Inc., Inc. are not subject to a NSPS subpart at this time.

The operations at this facility are subject to the requirements of 40 CFR 63 of Subpart ZZZZZ, "National Emission Standards for Iron and Steel Foundries Area Sources". This facility is considered an existing, large foundry by definition.
Authority for Requirement: 40 CFR Part 63 Subpart ZZZZZ
567 IAC 23.1(4)"dz"

The operations at this facility are not subject to the requirements of 40 CFR, Part 63, Subpart EEEEE, "National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries". The facility has construction permits that limit the potential to emit of a single hazardous air pollutant from the facility to 9.4 tons per year and that limit the potential to emit of total hazardous air pollutants from the facility to 24.4 tons per year.

Therefore, in accordance with section 63.7681, the facility is not a major source of HAP emissions, and the requirements of Subpart EEEEE do not apply.
Authority for Requirement: 40 CFR 63 Subpart EEEEE
567 IAC 23.1(4)"de"

EU-152 is subject to the requirements of 40 CFR 63 Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines".

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

III. Emission Point-Specific Conditions

Facility Name: Faircast, Inc.
Permit Number: 99-TV-058R3

Emission Point ID Number: EP 101F

Associated Equipment

Associated Emission Unit ID Numbers: EU 101

Emission Unit vented through this Emission Point: EU 101
Emission Unit Description: Scrap Handling; Iron
Raw Material/Fuel: Iron
Rated Capacity: 20 tons/hour

Applicable Requirements

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

Pollutant: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.
Authority for Requirement: 567 IAC 23.3(2)"c"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 201

Associated Equipment

Associated Emission Unit ID Numbers: EU 102
Emissions Control Equipment ID Number: CE 301A, CE 312
Emissions Control Equipment Description: Baghouse, Afterburner

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Emission Unit vented through this Emission Point: EU 102
Emission Unit Description: Cupola
Raw Material/Fuel: Iron
Rated Capacity: 20 tons/hour

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 Limits: 40 % (1)
Authority for Requirement: 40 CFR Part 63.10895(e)
567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 92-A-474-S10

(1) Opacity limits are:
- Per 567 IAC 23.3(2)"d" the limit on the stack is 40%. In addition, 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).
- Per 40 CFR §63.10895(e), fugitive emissions shall not be discharged to the atmosphere from the foundry operations that exhibit opacity greater than 20% on a six (6) minute average except for one (1) six (6) minute average per hour that does not exceed 30%.

Pollutant: Particulate Matter (PM) (2)
Emission Limits: 0.8 lb PM/ton of metal charged, 13.3 lb/hr, 30.63 tons/year
Authority for Requirement: 40 CFR §63.10895(c)(1)
Iowa DNR Construction Permit 92-A-474-S10

(2) Per 40 CFR §63.10895(c)(1), emissions discharged to the atmosphere shall not exceed either:
- 0.8 lb of PM per ton of metal charged or
- 0.06 lb of total metal HAP per ton of metal charged

Pollutant: PM-10
Emission Limit(s): 4.5 lb/hr, 19.7 tons/year
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv, 23.7 lb/hr, 54.36 tons/year
Authority for Requirement: 567 IAC 23.3(3)
Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Nitrogen Oxide (NOx)
Emission Limit(s): 32 lb/hr, 73.44 tons/year
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 29 lb/hr, 129.54 tons/year
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Lead (Pb)
Emission Limit(s): 0.49 lb/hr, 1.13 tons/year
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Manganese (Mn)
Emission Limit(s): 0.12 lb/hr, 0.276 tons/year
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Other Single HAP
Emission Limit(s): 0.033 lb/hr, 0.075 tons/year
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Total HAP
Emission Limit(s): 0.65 lb/hr, 1.481 tons/year
Authority for Requirement: 40 CFR 63 Subpart ZZZZZ
567 IAC 23.1(4)"dz"
Iowa DNR Construction Permit 92-A-474-S10

Pollutant: Total Metal HAP
Emission Limit(s): 0.06 lb of total metal HAP per ton of metal charged
Authority for Requirement: 40 CFR §63.10895(c)(1)
Iowa DNR Construction Permit 92-A-474-S10

Operational Limits & Requirements

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

National Emission Standards for Hazardous Air Pollutants (NESHAP):

The following subparts apply to this facility:

EU ID	Subpart	Title	Type	State Reference (567 IAC)	Federal Reference (40 CFR)
102	A	General Provisions	NA	23.1(4)	§63.1 – §63.15
	ZZZZZ	National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources	Existing Large Foundry	23.1(4)"dz"	§63.10880 – §63.10906

Operating Requirements and Associated Recordkeeping

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 Department. Records shall be legible and maintained in an orderly manner.

The operating requirements and associated recordkeeping for this permit shall be:

A. The maximum sulfur (S) content of any coke used in this emission unit (EU 102) shall not exceed 0.7% by weight. The owner or operator shall record the sulfur (S) content, in percent by weight, of any coke used in this emission unit (EU 102).

B. The maximum and routine (90% operating time) temperature of the gas stream entering the baghouse shall not exceed 500 ^{o}F and 450 ^{o}F, respectively. A temperature monitoring device shall be properly installed, calibrated, and maintained in order to continuously measure the inlet gas temperature to the baghouse (CE 301A). The owner or operator shall continuously record the inlet gas temperature to the baghouse (CE 301A).

C. The production rate of this emission unit (EU 102) shall not exceed 91,800 tons of metal charged per twelve-month rolling period. The owner or operator shall record the amount of metal charged (in tons) in this emission unit (EU 102) on a daily basis. On a monthly basis, the owner or operator shall calculate and record the monthly and rolling 12-month total amounts of metal charged (in tons) in this emission unit (EU 102).

D. The pressure drop across the baghouse (CE 301A) shall be between 1.5 to 8.0 inches of water column on an hourly average. The owner or operator shall collect and record the pressure drop across the baghouse (CE 301A) on an hourly basis when the emission unit (EU 102) is operating, except for normal meter maintenance, calibration and replacement, and malfunctions. A minimum of one (1) measurement shall be recorded per hour.

E. Per 40 CFR §63.10895, the owner or operator shall comply with the pollution prevention

management practices in 40 CFR §63.10885 and 40 CFR §63.10886.

F. Per 40 CFR §63.10896, the owner or operator shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR §63.10895. At a minimum, each plan must contain the following information:
   (1) General facility and contact information;
   (2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with NESHAP Subpart ZZZZZ;
   (3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection system, the O&M plan must include the site-specific monitoring plan required in 40 CFR §63.10897(d)(2); and,
   (4) Identity and estimate the quantity of the replacement parts that will be maintained in inventory.

   The owner or operator may use any other O&M plan, preventative maintenance plan, or similar plan which addresses the requirements in 40 CFR §63.10896 to demonstrate compliance with the requirements of the O&M plan. Per 40 CFR §63.10896, the owner or operator shall maintain a copy of the O&M plan at the facility (plant number 51-01-005) and make it available for review upon request.

G. Inspections of the baghouse (CE 301A) and system ductwork shall be conducted per 40 CFR 40 CFR §63.10897.

H. Per 40 CFR §63.10897(d), the owner or operator may elect to install a bag leak detection system in lieu of the baghouse inspection. If the owner or operator elects to install a bag leak detection system, the owner or operator shall install, operate, and maintain the system according to the requirements of 40 CFR §63.10897(d)(1) - 40 CFR §63.10897(d)(3).

I. The facility (plant number 51-01-005) shall:
   (1) Do all operation and maintenance required by NESHAP Subpart ZZZZZ per 40 CFR §63.10896 not specified above; and,
   (2) Do all monitoring required by NESHAP Subpart ZZZZZ per 40 CFR §63.10897 not specified above.

J. The owner or operator shall keep all records as required by NESHAP Subpart ZZZZZ per 40 CFR §63.10899.

Authority for Requirement: 40 CFR 63 Subpart ZZZZZ
567 IAC 23.1(4)"dz"
Iowa DNR Construction Permit 92-A-474-S10

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 90
Stack Diameter (inches, dia.): 84
Exhaust Flow Rate (scfm): 40,000
Exhaust Temperature (°F): 175
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 92-A-474-S10

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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.

Opacity Monitoring:

A. The permitee must conduct opacity tests for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR 63 Subpart ZZZZZ.

B. Subsequent performance tests must be conducted to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time a process change likely to increase fugitive emissions is made.

Authority for Requirement: 40 CFR 63.10898(h) and (i)
567 IAC 23.1(4)"dz"

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)

CAM Plan for CE 301A Baghouse

Dust collector Parameters
Associated Emission Units: EU102, cupola
Associated Emission Point: EP201
Pollutants Controlled: PM, PM10, Lead, HAPs

Applicable Requirements
Please see construction permit 92-A-474-S10.

Monitoring Approach

General Monitoring Guidelines

- CAM involves the observation of control equipment compliance indicators, such as visible emissions and pressure drop. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
- Monitoring is not required during periods of time greater than one day in which the source does not operate.
- If weather prevents visible emissions monitoring, the observer will note the weather conditions on the form used to record monitoring. If an observation is necessary to meet the required weekly monitoring, at least three attempts will be made to retake the observation throughout the day. If unsuccessful that day due to weather, an observation will be made the next day the weather permits.

Excursion from Compliance Indicators

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
- Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)
- Corrective actions will result in one of the following:
    - If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
    - If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
        - For visible emissions, if corrective action does not return the observation to no visible emissions, a Method 9 observation is required to determine opacity.
        - If a Method 9 observation is made that exceeds the indicator opacity, than an indicator opacity exceedance has occurred. The indicator opacity for this emission point is 10%.

        - In addition, if a Method 9 observation is made that exceeds the opacity permit limit, then a violation has also occurred.
- If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:
    - Continue corrective actions.
    - Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
    - Promptly orally report the indicator opacity exceedance to field office of IDNR; within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of IDNR.
    - Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
    - Conduct source testing within 90 days of the excursion to demonstrate compliance.
        - If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
        - If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
    - Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

- Visible Emissions
    - Observation of no visible emissions.
- Differential Pressure
    - Acceptable indicator range: 1.5" to 8" W.C, due to variable frequency drive fan on cupola.

Monitoring Methods

- Daily
  - Check for dust collector differential pressure.
- Weekly
  - Observe for visible emissions during material handling of unit.
- Monthly
  - Inspect dust collector cleaning sequence.
  - Check hopper function and performance.
- Quarterly
  - Inspect bags for leaks and wear.
- Semi-Annually
  - Inspect all dust collector components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

Performance Criteria

Data Representativeness

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions. A differential pressure not within the acceptable indicator range could indicate reduced performance by the dust collector and potentially an increase in particulate emissions.

Record Keeping and Reporting (Verification of Operational Status)

- Fairfield Casting will maintain records of the following:
  - Daily logs of differential pressure readings.
  - Weekly logs of emissions observations and differential pressure.
  - All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement.
  - All corrective actions resulting from compliance indicators and inspections and maintenance.
  - Excursion, indicator opacity exceedance, and excess emissions reports.
- Records will be kept for at least five years and be available upon request.

Quality Control

- The dust collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.
- Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

- Manual log entries are made based on gauge readings and the observation (or not) of visible emissions.
- Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for CE 312 Afterburner

Dust collector Parameters
• Associated Emission Units: EU102, cupola
• Associated Emission Point: EP201
• Pollutants Controlled: CO, HAPs

Applicable Requirements
Please see construction permit 92-A-474-S10.

Monitoring Approach

General Monitoring Guidelines
• CAM involves the observation of control equipment compliance indicators, such as the temperature in the cupola secondary combustion zone. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
• Monitoring is not required during periods of time greater than one day in which the source does not operate.

Excursion from Compliance Indicators
• An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
• Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)
• Corrective actions will result in one of the following:

- If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
- If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
- If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:
- Continue corrective actions.
- Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
- Conduct source testing within 90 days of the excursion to demonstrate compliance.

- If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
- If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.

➢ Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

- Cupola Secondary Combustion Zone Temperature
  - ➢ 1200°F to 1800 °F with a target range of 1500 °F to 1600 °F

Monitoring Methods

• Continuously

➢ Operator observes temperature of secondary combustion zone. The temperature is continuously monitored electronically and alarms are set at the temperature limits based on an hourly block average.

• Weekly

➢ Maintenance personnel inspect and maintain integrity and function of cupola according to established operating procedures.

➢ Maintenance personnel inspect and maintain integrity and function of afterburner according to established operating procedures.

Performance Criteria

Data Representativeness

Measurement of the secondary combustion zone temperature is a determination of the afterburner destruction efficiency. Combustion is used in this zone of the cupola to convert pollutants into carbon dioxide and water. As such, the temperature at this location is a primary variable affecting the afterburners combustion effectiveness. Outside of a particular temperature range, combustion will be increasingly incomplete.

Record Keeping and Reporting (Verification of Operational Status)

• Fairfield Casting will maintain records of the following:

➢ Daily operator logs of temperature reading hourly block averages.

➢ Weekly logs of inspection and maintenance procedures (completed work orders).

➢ All corrective actions resulting from compliance indicators and inspections and maintenance.

➢ Excursion and excess emissions reports.

• Records will be kept for at least five years and be available upon request.

Quality Control

• The afterburner and monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.

• Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

• Operators record the cupola secondary combustion zone temperature on paper logs. Operators obtain the temperature through the electronic system on the cupola that measures and displays the temperature.

• Maintenance personnel record all maintenance/inspections performed on the cupola and afterburner and actions resulting from the inspections on paper logs.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 240

Associated Equipment

Associated Emission Unit ID Numbers:	EU 103, EU 106-Baghouse, EU 110, EU 117C, EU 130, EU 155 & EU 156
Emissions Control Equipment ID Number:	CE 313 & CE 317
Emissions Control Equipment Description:	Two (2) Baghouses

Emission Unit vented through this Emission Point: EU 103
Emission Unit Description: Two (2) Induction Furnaces
Raw Material/Fuel: Iron
Rated Capacity: 13.5 tons metal melt/hour (total)

Emission Unit vented through this Emission Point: EU 106
Emission Unit Description: Disa C Mold, Pour & Cool
Raw Material/Fuel: Iron
Rated Capacity: 8.7 tons metal melt/hour

Emission Unit vented through this Emission Point: EU 110
Emission Unit Description: Disa C Shakeout
Raw Material/Fuel: Metal Castings
Rated Capacity: 8.7 tons/hour

Emission Unit vented through this Emission Point: EU 117C
Emission Unit Description: Disa C Muller
Raw Material/Fuel: Sand
Rated Capacity: 100 tons sand/hour

Emission Unit vented through this Emission Point: EU 130
Emission Unit Description: Disa Sand Return
Raw Material/Fuel: Sand
Rated Capacity: 185 tons sand/hour

Emission Unit vented through this Emission Point: EU 155
Emission Unit Description: Disa A & B Muller Bin
Raw Material/Fuel: Sand & Bond
Rated Capacity: 140 tons/hour

Emission Unit vented through this Emission Point: EU 156
Emission Unit Description: Disa C Muller Bin
Raw Material/Fuel: Sand & Bond
Rated Capacity: 140 tons sand & bond/hour

Applicable Requirements

BACT Emission Limits for the Induction Furnaces—EU 103 (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

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

Pollutant: Opacity
Emission Limits: 0 %
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 08-A-222-P1

Pollutant: Particulate Matter (PM)
Emission Limits: 0.042 lb/ton, 2.48 tons/year
Authority for Requirement: Iowa DNR Construction Permit 08-A-222-P1

Pollutant: PM-10
Emission Limit(s): 0.042 lb/ton, 2.48 tons/year
Authority for Requirement: Iowa DNR Construction Permit 08-A-222-P1

NESHAP Emission Limits for the Induction Furnaces—EU 103 (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

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

Pollutant: Opacity
Emission Limits: 40 % (1)
Authority for Requirement: 40 CFR Part 63.10895(e)
567 IAC 23.3(2)"d"

(1) Opacity limits are:
- Per 567 IAC 23.3(2)"d", the limit on the stack is 40%. In addition, 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).
- Per 40 CFR §63.10895(e), fugitive emissions shall not be discharged to the atmosphere from the foundry operations that exhibit opacity greater than 20% on a six (6) minute average except for one (1) six (6) minute average per hour that does not exceed 30%.

Pollutant: Particulate Matter (PM) (2)
Emission Limits: 0.8 lb PM/ton of metal charged
Authority for Requirement: 40 CFR §63.10895(c)(1)

(2) Per 40 CFR §63.10895(c)(1), emissions discharged to the atmosphere shall not exceed either:
- 0.8 lb of PM per ton of metal charged or
- 0.06 lb of total metal HAP per ton of metal charged

Pollutant: Total Metal HAP
Emission Limit(s): 0.06 lb of total metal HAP per ton of metal charged
Authority for Requirement: 40 CFR §63.10895(c)(1)

Emission Limits for the Stack—EP-240 (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: See Footnote [3]
Authority for Requirement: 567 IAC 23.3(2)"d"
567 IAC 23.1(4)"dz"

[3] Opacity limits for this emission point are:

- Per 567 IAC 23.3(2)"d", the limit on the stack is 40%. In addition, 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).
- Per 40 CFR §63.10895(e), fugitive emissions shall not be discharged to the atmosphere from the foundry operations that exhibit opacity greater than 20% on a six (6) minute average except for one (1) six (6) minute average per hour that does not exceed 30%.

Pollutant: Particulate Matter (PM) - Federal
Emission Limits: See Footnote [4]
Authority for Requirement: 567 IAC 23.1(4)"dz"

[4] Per 40 CFR §63.10895(c)(1), emissions discharged to the atmosphere shall not exceed:

- 0.8 lb of PM per ton of metal charged; or
- 0.06 lb of total metal HAP per ton of metal charged.

Pollutant: Particulate Matter (PM) - State
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 08-A-222-P1

Pollutant: PM-10
Emission Limit(s): 5.50 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 08-A-222-P1

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

National Emission Standards for Hazardous Air Pollutants (NESHAP):

The following subparts apply to this facility:

EU ID	Subpart	Title	Type	State Reference (567 IAC)	Federal Reference (40 CFR)
EU 103	A	General Provisions	NA	23.1(4)	§63.1 – §63.15
	ZZZZZ	National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources	Existing Large Foundry	23.1(4)"dz"	§63.10880 – §63.10906

Operating Requirements and Associated Recordkeeping

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 Department. Records shall be legible and maintained in an orderly manner.

A. The pressure drop across the baghouse (CE 301A) shall be between 1.5 to 8.0 inches of water column on an hourly average. The owner or operator shall collect and record the pressure drop across the baghouse (CE 301A) on an hourly basis when the emission unit (EU 102) is operating, except for normal meter maintenance, calibration and replacement, and malfunctions. A minimum of one (1) measurement shall be recorded per hour.

B. Per 40 CFR §63.10895, the owner or operator shall comply with the pollution prevention management practices in 40 CFR §63.10885 and 40 CFR §63.10886.

C. Per 40 CFR §63.10896, the owner or operator shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR §63.10895. At a minimum, each plan must contain the following information:

   i. General facility and contact information;
   ii. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with NESHAP Subpart ZZZZZ;
   iii. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection system, the O&M plan must include the site-specific monitoring plan required in 40 CFR §63.10897(d)(2); and
   iv. Identity and estimate the quantity of the replacement parts that will be maintained in inventory.

   The owner or operator may use any other O&M plan, preventative maintenance plan, or similar plan which addresses the requirements in 40 CFR §63.10896 to demonstrate compliance with the requirements of the O&M plan. Per 40 CFR §63.10896, the owner or operator shall maintain a copy of the O&M plan at the facility (plant number 51-01-005) and make it available for review upon request.

D. Inspections of the baghouse (CE 317) and system ductwork shall be conducted per 40 CFR 40 CFR §63.10897.

E. Per 40 CFR §63.10897(d), the owner or operator may elect to install a bag leak detection system in lieu of the baghouse inspection. If the owner or operator elects to install a bag leak detection system, the owner or operator shall install, operate, and maintain the system according to the requirements of 40 CFR §63.10897(d)(1) - 40 CFR §63.10897(d)(3).

F. The facility (plant number 51-01-005) shall:

   i. Do all operation and maintenance required by NESHAP Subpart ZZZZZ per 40 CFR §63.10896 not specified above and
   ii. Do all monitoring required by NESHAP Subpart ZZZZZ per 40 CFR §63.10897

not specified above.

G. The owner or operator shall keep all records as required by NESHAP Subpart ZZZZZ per 40 CFR §63.10899.

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

Stack Height, (ft, from the ground): 90
Stack Opening, (inches, dia.): 72
Exhaust Flow Rate (scfm): 64,000
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 08-A-222-P1

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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.

Opacity Monitoring:

A. The permitee must conduct opacity tests for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR 63 Subpart ZZZZZ.

B. Subsequent performance tests must be conducted to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time a process change likely to increase fugitive emissions is made.

Authority for Requirement: 40 CFR 63.10898(h) and i
567 IAC 23.1(4)"dz"

Stack Testing:

Pollutant - Particulate Matter (PM) (1)
Stack Test to be Completed by (date): Every 5 years
Test Method – 40 CFR Part 60 Appendix A, Method 5

(1) As per §63.10898(b), The facility must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits (shown above) for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time you elect to change an operating limit or make a process change likely to increase HAP emissions.

Authority for Requirement - 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for CE 313 Baghouse

Dust collector Parameters

• Associated Emission Units: EU 106, Disa C Mold Pour and Cool, EU112, Tumblers 2 & 3, EU117C, Disa C Muller, EU130, Disa Return Sand, EU155, Disa A/B Muller Bins, EU156, Disa C Muller Bins
• Associated Emission Point: EP240
• Pollutants Controlled: PM, and PM10

Applicable Requirements

Iowa DNR Construction Permit 08-A-222-P1

Monitoring Approach

General Monitoring Guidelines

• CAM involves the observation of control equipment compliance indicators, such as visible emissions and pressure drop. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
• Monitoring is not required during periods of time greater than one day in which the source does not operate.
• If weather prevents visible emissions monitoring, the observer will note the weather conditions on the form used to record monitoring. If an observation is necessary to meet the required weekly monitoring, at least three attempts will be made to retake the observation throughout the day. If unsuccessful that day due to weather, an observation will be made the next day the weather permits.

Excursion from Compliance Indicators

• An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
• Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the

observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)

• Corrective actions will result in one of the following:

- If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
- If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
    - For visible emissions, if corrective action does not return the observation to no visible emissions, a Method 9 observation is required to determine opacity.
    - If a Method 9 observation is made that exceeds the indicator opacity, than an indicator opacity exceedance has occurred. The indicator opacity for this emission point is 0%.
    - In addition, if a Method 9 observation is made that exceeds the opacity permit limit, then a violation has also occurred.

• If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:

- Continue corrective actions.
- Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- Promptly orally report the indicator opacity exceedance to field office of IDNR; Within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of IDNR.
- Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
- Conduct source testing within 90 days of the excursion to demonstrate compliance.
    - If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
    - If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
- Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

• Visible Emissions

- Observation of no visible emissions.

• Differential Pressure

- Acceptable indicator range: 5" to 8" W.C.

Monitoring Methods

• Daily

- Check for dust collector differential pressure.

• Weekly
  - Observe for visible emissions during material handling of unit.
• Monthly
  - Inspect dust collector cleaning sequence.
  - Check hopper function and performance.
• Quarterly
  - Inspect bags for leaks and wear.
• Semi-Annually
  - Inspect all dust collector components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

Performance Criteria

Data Representativeness

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions. A differential pressure not within the acceptable indicator range could indicate reduced performance by the dust collector and potentially an increase in particulate emissions.

Record Keeping and Reporting (Verification of Operational Status)

• Fairfield Casting will maintain records of the following:
  - Daily logs of differential pressure readings.
  - Weekly logs of emissions observations and differential pressure.
  - All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement.
  - All corrective actions resulting from compliance indicators and inspections and maintenance.
  - Excursion, indicator opacity exceedance, and excess emissions reports.
• Records will be kept for at least five years and be available upon request.

Quality Control

• The dust collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.
• Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

• Manual log entries are made based on gauge readings and the observation (or not) of visible emissions.
• Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for CE 317 Baghouse

Dust collector Parameters

• Associated Emission Units: EU 103, Induction Furnaces
• Associated Emission Point: EP240
• Pollutants Controlled: PM and PM10

Applicable Requirements

Iowa DNR Construction Permit 08-A-222-P1

Monitoring Approach

General Monitoring Guidelines

• CAM involves the observation of control equipment compliance indicators, such as visible emissions and pressure drop. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
• Monitoring is not required during periods of time greater than one day in which the source does not operate.
• If weather prevents visible emissions monitoring, the observer will note the weather conditions on the form used to record monitoring. If an observation is necessary to meet the required weekly monitoring, at least three attempts will be made to retake the observation throughout the day. If unsuccessful that day due to weather, an observation will be made the next day the weather permits.

Excursion from Compliance Indicators

• An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
• Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)
• Corrective actions will result in one of the following:

- If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
- If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
  - For visible emissions, if corrective action does not return the observation to no visible emissions, a Method 9 observation is required to determine opacity.
  - If a Method 9 observation is made that exceeds the indicator opacity, than an indicator opacity exceedance has occurred. The indicator opacity for this emission point is 0%.
  - In addition, if a Method 9 observation is made that exceeds the opacity permit limit, then a violation has also occurred.

• If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:

- Continue corrective actions.

- Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- Promptly orally report the indicator opacity exceedance to field office of IDNR; Within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of IDNR.
- Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
- Conduct source testing within 90 days of the excursion to demonstrate compliance.
  - If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
  - If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
- Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

• Visible Emissions
  - Observation of no visible emissions.

• Differential Pressure
  - Acceptable indicator range: 2"-6" W.C.

Monitoring Methods

• Daily
  - Check for dust collector differential pressure.

• Weekly
  - Observe for visible emissions during material handling of unit.

• Monthly
  - Inspect dust collector cleaning sequence.
  - Check hopper function and performance.

• Quarterly
  - Inspect bags for leaks and wear.

• Semi-Annually
  - Inspect all dust collector components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

Performance Criteria

Data Representativeness

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions. A differential pressure not within the acceptable indicator range could indicate reduced performance by the dust collector and potentially an increase in particulate emissions.

Record Keeping and Reporting (Verification of Operational Status)

• Fairfield Casting will maintain records of the following:

- Daily logs of differential pressure readings.
- Weekly logs of emissions observations and differential pressure.
- All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement.
- All corrective actions resulting from compliance indicators and inspections and maintenance.
- Excursion, indicator opacity exceedance, and excess emissions reports.

• Records will be kept for at least five years and be available upon request.

Quality Control

• The dust collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.

• Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

• Manual log entries are made based on gauge readings and the observation (or not) of visible emissions.

• Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 203

Associated Equipment

Associated Emission Unit ID Numbers: EU 105-Baghouse, EU 108, EU 109, EU 121
Emissions Control Equipment ID Number: CE 302
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU 105-Baghouse
Emission Unit Description: Disa A & B Mold, Pour & Cool
Raw Material/Fuel: Iron
Rated Capacity: 14.0 tons metal melt/hr (total for 2 lines)

Emission Unit vented through this Emission Point: EU 108
Emission Unit Description: 20 x 26 Shakeout
Raw Material/Fuel: Metal Castings
Rated Capacity: 4.0 tons/hr

Emission Unit vented through this Emission Point: EU 109
Emission Unit Description: Disa A (RS-60) & Disa B (MD-50) Shakeouts
Raw Material/Fuel: Metal Castings
Rated Capacity: 14.0 tons/hr (total for 2 Didions)

Emission Unit vented through this Emission Point: EU 121
Emission Unit Description: 20 x 26 Automold
Raw Material/Fuel: Sand
Rated Capacity: 38.0 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 Limits: 40 % (1)
Authority for Requirement: 40 CFR Part 63.10895(e)
567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 95-A-381-S4

(1) Opacity limits are:

- Per 567 IAC 23.3(2)"d" the limit on the stack is 40%. In addition, 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).
- Per 40 CFR §63.10895(e), fugitive emissions shall not be discharged to the atmosphere from the foundry operations that exhibit opacity greater than 20% on a six (6) minute average except for one (1) six (6) minute average per hour that does not exceed 30%.

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05 gr/dscf, 5.57 lb/hr.
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 95-A-381-S4

Pollutant: PM-10
Emission Limit(s): 3.29 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv, 0.2 lb/hr
Authority for Requirement: 567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Nitrogen Oxide (NO_x)
Emission Limit(s): 1.4 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 6.5 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Lead (Pb)
Emission Limit(s): 0.007 lb/hr, 8.19 tons/yr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Manganese Compounds
Emission Limit(s): 9.04 tons/yr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Hexane
Emission Limit(s): 9.02 tons/yr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Single HAP[(3)]
Emission Limit(s): 9.32 tons/yr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Pollutant: Total HAPs
Emission Limit(s): 22.31 tons/yr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

(2) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

(3) Each individual HAP with the exception of lead compounds, manganese compounds, and hexane.

Operational Limits & Requirements

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

Operating Limits

Operating limits for these emission units shall be:

A. Mold making in these units shall be limited to a green sand binding system with a seacoal additive.

Reporting and 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. These records shall show the following:

A. The permittee shall maintain daily records on the amount of metal poured in the Disa A & B Mold, Pour and Cool Line (EU 105),and the amount of metal processed through the shakeouts (Disa A & B, Disa C, 20x26, and Manual) .

B. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

   The daily emissions of individual HAPs from the Disa A & B Mold, Pour & Cool Line (EU 105) shall be calculated by using the following equations:

   Ebe = 0.037 l lb/ton x TMP

   Eto = 0.019 lb/ton x TMP

   Efo = 0.0018 lb/ton x TMP

   Etoh = 0.024 lb/ton x TMP

   Ema = [(0.026 lb/ton x 3.2/100) + (0.038 lb/ton x 0.11/100)] x TMP

   Etm = [(0.026 lb/ton x 5.08/100) + (0.038 lb/ton x 0.22/100)] x TMP

   Where,

   Ebe = pounds of benzene emitted, Eto = pounds of toluene emitted, Efo = pounds of formaldehyde emitted, Etoh = pounds of total organic HAP, Ema = pounds of manganese emitted, Etm = pounds of total metal HAP emitted

   TMP = tons metal poured

   0.0371 lb/ton = emission factor for benzene emissions from pouring and cooling[1]

   0.019 lb/ton = emission factor for toluene emissions from pouring and cooling[1]

0.0018 lb/ton = emission factor for formaldehyde emissions from pouring and cooling[1]

0.024 lb/ton = emission factor for total organic HAP (excluding benzene, toluene, formaldehyde) emissions from pouring and cooling[1]

0.026 lb/ton = controlled PM emission factor for metal pouring[2]

0.038 lb/ton = controlled PM emission factor for metal cooling[2]

3.2 = manganese content, percentage of PM emissions from pouring[3]

0.11 = manganese content, percentage of PM emissions from cooling[3]

5.08 = total HAP metal content, percentage of PM emissions from pouring[3]

0.22 = total HAP metal content, percentage of PM emissions from cooling[3]

[1] From U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table 5-4, (BID)

[2] From BID, Table 5-6

[3] From BID, Table 5-7

The daily emissions of Total HAP from the Disa A & B Mold, Pour and Cool Line (EU 105) shall be calculated by summing the emissions of individual HAP.

The daily emissions of individual HAPs from the Disa A & B Shakeout (EU 109), the 20 x 26 Shakeout (EU 108) , the Manual Shakeout (EU 107) and the Disa C Shakeout (EU 110) shall be calculated by using the following equations:

Ebe = 0.0268 lb/ton x TMPS

Eto = 0.0221 lb/ton x TMPS

Efo = 0.0257 lb/ton x TMPS

Etoh = 0.125 lb/ton x TMPS

Ema = (0.30 lb/ton x 0.021/100) x TMPS

Etm = (0.30 lb/ton x 0.024/100) x TMPS

Where,

Ebe = pounds of benzene emitted, Eto = pounds of toluene emitted, Efo = pounds of formaldehyde emitted, Etoh = pounds of total organic HAP, Ema = pounds of manganese emitted, Etm = pounds of total metal HAP emitted

TMPS = total tons metal processed in shakeouts (Disa A&B, Disa C, 20x26, and Manual) each day

0.0268 lb/ton = emission factor for benzene emissions from shakeout[1]

0.0221 lb/ton = emission factor for toluene emissions from shakeout[1]

0.0257 lb/ton = emission factor for formaldehyde emissions from shakeout[1]

0.149 lb/ton = emission factor for total organic HAP (excluding benzene, toluene, formaldehyde) emissions from shakeout[1]

0.30 lb/ton = controlled PM emission factor for metal shakeout[2]

0.021 = manganese content, percentage of PM emissions from shakeout[3]

0.024 = total HAP metal content, percentage of PM emissions from shakeout[3]

[1] From U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table 5-4, (BID)

[2] From BID, Table 5-6

[3] From BID, Table 5-7

The daily emissions of Total HAP from the Disa A & B Shakeout (EU 109), the 20 x 26 Shakeout (EU 108), the Manual Shakeout (EU 107) and the Disa C Shakeout (EU 110) shall be calculated by summing the emissions of individual HAP.

C. The permittee shall maintain the following monthly records:
   i The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);
   ii The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);
   iii The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and
   iv. The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

D. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

E. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

F. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 95-A-381-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 70
Stack Opening, (inches, dia.): 60
Exhaust Flow Rate (scfm): 56,300
Exhaust Temperature (°F): 116
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 95-A-381-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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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) (1)
Stack Test to be Completed by (date): April 29, 2017
Test Method: 40 CFR 60, Appendix A, Method 5
(1) Testing is required to demonstrate compliance with the limits on the stack (EP 203).
Authority for Requirement: 567 IAC 22.108(3)

Pollutant: PM-10 (1)
Stack Test to be Completed by (date): April 29, 2017
Test Method: 40 CFR 51, Appendix M, 201A and 202
(1)Testing is required to demonstrate compliance with the limits on the stack (EP 203).
Authority for Requirement: 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for CE-302 Baghouse

Dust collector Parameters
• Associated Emission Units: EU105, Disa A and B Mold Pour and Cool, EU 108, 20x26 Shakeout, EU109, Disa A and B Shakeout, EU121, 20x26 Automold
• Associated Emission Point: EP203
• Pollutants Controlled: PM, PM10, Lead, HAPs

Applicable Requirements
Please see construction permit 95-A-381-S4.

Monitoring Approach

General Monitoring Guidelines

• CAM involves the observation of control equipment compliance indicators, such as visible emissions and pressure drop. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
• Monitoring is not required during periods of time greater than one day in which the source does not operate.
• If weather prevents visible emissions monitoring, the observer will note the weather conditions on the form used to record monitoring. If an observation is necessary to meet the required weekly monitoring, at least three attempts will be made to retake the observation throughout the day. If unsuccessful that day due to weather, an observation will be made the next day the weather permits.

Excursion from Compliance Indicators

• An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
• Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)
• Corrective actions will result in one of the following:

- If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
- If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
  - For visible emissions, if corrective action does not return the observation to no visible emissions, a Method 9 observation is required to determine opacity.
  - If a Method 9 observation is made that exceeds the indicator opacity, than an indicator opacity exceedance has occurred. The indicator opacity for this emission point is 10%.
  - In addition, if a Method 9 observation is made that exceeds the opacity permit limit, then a violation has also occurred.

• If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:

- Continue corrective actions.
- Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- Promptly orally report the indicator opacity exceedance to field office of IDNR; Within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of IDNR.

- Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
- Conduct source testing within 90 days of the excursion to demonstrate compliance.
  - If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
  - If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
- Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

• Visible Emissions
  - Observation of no visible emissions.
• Differential Pressure
  - Acceptable indicator range: 3" to 8" W.C.

Monitoring Methods

• Daily
  - Check for dust collector differential pressure.
• Weekly
  - Observe for visible emissions during material handling of unit.
• Monthly
  - Inspect dust collector cleaning sequence.
  - Check hopper function and performance.
• Quarterly
  - Inspect bags for leaks and wear.
• Semi-Annually
  - Inspect all dust collector components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

Performance Criteria

Data Representativeness

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions. A differential pressure not within the acceptable indicator range could indicate reduced performance by the dust collector and potentially an increase in particulate emissions.

Record Keeping and Reporting (Verification of Operational Status)

• Fairfield Casting will maintain records of the following:
  - Daily logs of differential pressure readings.
  - Weekly logs of emissions observations and differential pressure.

- All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement.
- All corrective actions resulting from compliance indicators and inspections and maintenance.
- Excursion, indicator opacity exceedance, and excess emissions reports.

• Records will be kept for at least five years and be available upon request.

Quality Control

• The dust collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.
• Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

• Manual log entries are made based on gauge readings and the observation (or not) of visible emissions.
• Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 235-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 105-Vent 235, EU 106-Vent 235

Emission Unit vented through this Emission Point: EU 105-Vent 235
Emission Unit Description: Disa A & B Mold, Pour & Cool
Raw Material/Fuel: Iron
Rated Capacity: 14 Tons of Metal/hour

Emission Unit vented through this Emission Point: EU 106-Vent 235
Emission Unit Description: Disa C Mold, Pour & Cool
Raw Material/Fuel: Iron
Rated Capacity: 8.7 tons of Metal/hour

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 Limits: No VE (1)
(1) Opacity limit for this emission point is "no visible emissions".
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 08-A-223-S1

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 08-A-223-S1

Pollutant: PM-10
Emission Limit(s): 1.2 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

Pollutant: Lead (Pb)
Emission Limit(s): 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

Pollutant: Manganese Compounds
Emission Limit(s): 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

Pollutant: Hexane
Emission Limit(s): 9.02 tons/yr [(2)]
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

Pollutant: Single HAP [(3)]
Emission Limit(s): 9.32 tons/yr [(2)]
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

Pollutant: Total HAPs
Emission Limit(s): 22.31 tons/yr [(2)]
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

(2) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

(3) Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

Operational Limits & Requirements

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

No operating limits are required for these emission units at this time.

Reporting and 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. These records shall show the following:

A. The permittee shall maintain daily records on the amount of metal poured in the Disa A & B Mold, Pour & Cool Line and the Disa C Mold Pour & Cool Line.

B. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

   The daily emissions of individual HAPs from the Disa A & B Mold, Pour & Cool Line (EU 105) and Disa C Mold, Pour & Cool Line (EU 106) shall be calculated by using the following equations:

   Ebe = 0.037 l lb/ton x TMP

   Eto = 0.019 lb/ton x TMP

   Efo = 0.0018 lb/ton x TMP

   Etoh = 0.024 lb/ton x TMP

   Ema = [(0.0873 lb/ton x 3.2/100) + (0.29 lb/ton x 0.11/100)] x TMP x (1 - .95)

Etm = [(0.0873 lb/ton x 5.08/100) + (0.29 lb/ton x 0.22/100)] x TMP x (1 - .95)

Where,

Ebe = pounds of benzene emitted, Eto = pounds of toluene emitted, Efo = pounds of formaldehyde emitted, Ema = pounds of manganese emitted, Etm = pounds of total metal HAP emitted

TMP = daily tons of metal poured in the Disa A & B Mold, Pour & Cool Line and the Disa C Mold, Pour & Cool Line

0.0371 lb/ton = emission factor for benzene emissions from pouring and cooling[1]

0.019 lb/ton = emission factor for toluene emissions from pouring and cooling[1]

0.0018 lb/ton = emission factor for formaldehyde emissions from pouring and cooling[1]

0.024 lb/ton = emission factor for total organic HAP (excluding benzene, toluene, formaldehyde) emissions from pouring and cooling[1]

0.0873 lb/ton = uncontrolled PM emission factor for metal pouring[2]

0.29 lb/ton = uncontrolled PM emission factor for metal cooling[2]

3.2 = manganese content, percentage of PM emissions from pouring[3]

0.11 = manganese content, percentage of PM emissions from cooling[3]

5.08 = total HAP metal content, percentage of PM emissions from pouring[3]

0.22 = total HAP metal content, percentage of PM emissions from cooling[3]

0.95 = facility's estimate of capture efficiency for particulate matter emissions from pouring and cooling from Disa A & B Mold, Pour & Cool Line and the Disa C Mold, Pour & Cool Line

[1] From U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table 5-4, (BID)

[2] From BID, Table 5-6

[3] From BID, Table 5-7

The daily emissions of Total HAP from the Disa A & B Mold, Pour & Cool Line (EU 105) and the Disa C Mold, Pour & Cool Line (EU 106) shall be calculated by summing the emissions of individual HAP.

C. The permittee shall maintain the following monthly records:

i. The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

ii. The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A &

B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iii. The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

iv. The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

D. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

E. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

F. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 08-A-223-S1

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 41
Stack Diameter (inches, dia.): 52.8
Exhaust Flow Rate (scfm): 33,500
Exhaust Temperature (°F): 70
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 08-A-223-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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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.

Opacity Monitoring:

A. The permitee must conduct opacity tests for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR 63 Subpart ZZZZZ.

B. Subsequent performance tests must be conducted to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time a process change likely to increase fugitive emissions is made.

Authority for Requirement: 40 CFR 63.10898(h) and i
567 IAC 23.1(4)"dz"

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 236-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 105-Vent 236, EU 106-Vent 236

Emission Unit vented through this Emission Point: EU 105-Vent 236
Emission Unit Description: Disa A & B Mold, Pour & Cool
Raw Material/Fuel: Iron
Rated Capacity: 14 tons of Metal/hour

Emission Unit vented through this Emission Point: EU 106-Vent 236
Emission Unit Description: Disa C Mold, Pour & Cool
Raw Material/Fuel: Iron
Rated Capacity: 8.7 tons of Metal/hour

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 Limits: No VE (1)
(1) Opacity limit for this emission point is "no visible emissions".
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 08-A-224-S1

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 08-A-224-S1

Pollutant: PM-10
Emission Limit(s): 1.2 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

Pollutant: Lead (Pb)
Emission Limit(s): 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

Pollutant: Manganese Compounds
Emission Limit(s): 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

Pollutant: Hexane
Emission Limit(s): 9.02 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

Pollutant: Single HAP [3]
Emission Limit(s): 9.32 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

Pollutant: Total HAPs
Emission Limit(s): 22.31 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

[2] Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

[3] Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

Operational Limits & Requirements

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

No operating limits are required for these emission units at this time.

Reporting and 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. These records shall show the following:

A. The permittee shall maintain daily records on the amount of metal poured in the Disa A & B Mold, Pour & Cool Line and the Disa C Mold Pour & Cool Line.

B. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

   The daily emissions of individual HAPs from the Disa A & B Mold, Pour & Cool Line (EU 105) and Disa C Mold, Pour & Cool Line (EU 106) shall be calculated by using the following equations:

   Ebe = 0.037 l lb/ton x TMP

   Eto = 0.019 lb/ton x TMP

   Efo = 0.0018 lb/ton x TMP

   Etoh = 0.024 lb/ton x TMP

   Ema = [(0.0873 lb/ton x 3.2/100) + (0.29 lb/ton x 0.11/100)] x TMP x (1 - .95)

Etm = [(0.0873 lb/ton x 5.08/100) + (0.29 lb/ton x 0.22/100)] x TMP x (1 - .95)

Where,

Ebe = pounds of benzene emitted, Eto = pounds of toluene emitted, Efo = pounds of formaldehyde emitted, Ema = pounds of manganese emitted, Etm = pounds of total metal HAP emitted

TMP = daily tons of metal poured in the Disa A & B Mold, Pour & Cool Line and the Disa C Mold, Pour & Cool Line

0.0371 lb/ton = emission factor for benzene emissions from pouring and cooling[1]

0.019 lb/ton = emission factor for toluene emissions from pouring and cooling[1]

0.0018 lb/ton = emission factor for formaldehyde emissions from pouring and cooling[1]

0.024 lb/ton = emission factor for total organic HAP (excluding benzene, toluene, formaldehyde) emissions from pouring and cooling[1]

0.0873 lb/ton = uncontrolled PM emission factor for metal pouring[2]

0.29 lb/ton = uncontrolled PM emission factor for metal cooling[2]

3.2 = manganese content, percentage of PM emissions from pouring[3]

0.11 = manganese content, percentage of PM emissions from cooling[3]

5.08 = total HAP metal content, percentage of PM emissions from pouring[3]

0.22 = total HAP metal content, percentage of PM emissions from cooling[3]

0.95 = facility's estimate of capture efficiency for particulate matter emissions from pouring and cooling from Disa A & B Mold, Pour & Cool Line and the Disa C Mold, Pour & Cool Line

[1] From U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table 5-4, (BID)

[2] From BID, Table 5-6

[3] From BID, Table 5-7

The daily emissions of Total HAP from the Disa A & B Mold, Pour & Cool Line (EU 105) and the Disa C Mold, Pour & Cool Line (EU 106) shall be calculated by summing the emissions of individual HAP.

C. The permittee shall maintain the following monthly records:

i. The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

ii. The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A &

B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iii. The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

iv. The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

D. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

E. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

F. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 08-A-224-S1

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 41
Stack Diameter (inches, dia.): 52.8
Exhaust Flow Rate (scfm): 36,500
Exhaust Temperature (°F): 70
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 08-A-224-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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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.

Opacity Monitoring:

A. The permitee must conduct opacity tests for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR 63 Subpart ZZZZZ.

B. Subsequent performance tests must be conducted to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e) no less frequently than every 6 months and each time a process change likely to increase fugitive emissions is made.

Authority for Requirement: 40 CFR 63.10898(h) and i
567 IAC 23.1(4)"dz"

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 104F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 104

Emission Unit vented through this Emission Point: EU 104
Emission Unit Description: Manual Pour and Cool
Raw Material/Fuel: Metal Melt
Rated Capacity: 10.92 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 Limits: 40 % (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 09-A-506

(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 (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 09-A-506

Pollutant: Sulfur Dioxide (SO_2)
Emission Limits: 500 ppm
Authority for Requirement: 567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 09-A-506

Pollutant: Lead (Pb)
Emission Limits: 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-506

Pollutant: Manganese Compounds
Emission Limits: 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-506

Pollutant: Hexane
Emission Limits: 9.02 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-506

Pollutant: Single HAP(3)
Emission Limits: 9.32 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-506

Pollutant: Total HAP
Emission Limits: 22.31 tons/y r(2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-506

(2) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.
(3) Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

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

No operating limits are required for these emission units at this time.

Reporting and 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. These records shall show the following:

A. The permittee shall maintain daily records on the amount of metal poured in the emissions unit.

B. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

The daily emissions of individual HAPs from the Manual Pour and Cool Line (EU 104) shall be calculated by using the following equations:

Ebe = 0.037 l lb/ton x TMP

Eto = 0.019 lb/ton x TMP

Efo = 0.0018 lb/ton x TMP

Etoh = 0.024 lb/ton x TMP

Ema = [(0.0873 lb/ton x 3.2/100) + (0.29 lb/ton x 0.11/100)] x TMP

Etm = [(0.0873 lb/ton x 5.08/100) + (0.29 lb/ton x 0.22/100)] x TMP

Where,

Ebe = pounds of benzene emitted, Eto = pounds of toluene emitted, Efo = pounds of formaldehyde emitted, Etoh = pounds of total organic HAP, Ema = pounds of manganese emitted, Etm = pounds of total metal HAP emitted

0.0371 lb/ton = emission factors for benzene emissions from pouring and cooling[1]

0.019 lb/ton = emission factors for toluene emissions from pouring and cooling[1]

0.0018 lb/ton = emission factors for formaldehyde emissions from pouring and cooling[1]

0.024 lb/ton = emission factor for total organic HAP (excluding benzene, toluene, formaldehyde) emissions from pouring and cooling[1]

0.0873 lb/ton = uncontrolled PM emission factor for metal pouring[2]

0.29 lb/ton = uncontrolled PM emission factor for metal cooling[2]

3.2 = manganese content, percentage of PM emissions from pouring[3]

0.11 = manganese content, percentage of PM emissions from cooling[3]

5.08 = total HAP metal content, percentage of PM emissions from pouring[3]

0.22 = total HAP metal content, percentage of PM emissions from cooling[3]

[1] From U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table 5-4

[2] From BID, Table 5-6

[3] From BID, Table 5-7

The daily emissions of Total HAP from the Manual Pour and Cool Line (EU 104) shall be calculated by summing the emissions of individual HAP.

C. The permittee shall maintain the following monthly records:

i. The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

ii. The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iii. The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure

Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

iv. The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

D. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

E. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

F. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 09-A-506

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 205

Associated Equipment

Associated Emission Unit ID Numbers: EU 107, EU 118, EU 129, EU 154
Emissions Control Equipment ID Number: CE 304
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU 107
Emission Unit Description: Manual Shakeout
Raw Material/Fuel: Metal Castings
Rated Capacity: 10.92 tons/hr

Emission Unit vented through this Emission Point: EU 118
Emission Unit Description: Manual Muller
Raw Material/Fuel: Sand
Rated Capacity: 98 tons/hr

Emission Unit vented through this Emission Point: EU 129
Emission Unit Description: Manual Sand Return
Raw Material/Fuel: Sand
Rated Capacity: 98 tons/hr

Emission Unit vented through this Emission Point: EU 154
Emission Unit Description: Manual Muller Bin
Raw Material/Fuel: Sand
Rated Capacity: 140 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 Limits: 40 % (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 88-A-014-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 (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 88-A-014-S3

Pollutant: PM-10
Emission Limit(s): 2.75 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

Pollutant: Lead (Pb)
(1) Emission Limit(s): 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

Pollutant: Manganese Compounds
Emission Limit(s): 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

Pollutant: Hexane
Emission Limit(s): 9.02 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

Pollutant: Single HAP (3)
Emission Limit(s): 9.32 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

Pollutant: Total HAPs
Emission Limit(s): 22.31 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

(1) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

(2) Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

Operational Limits & Requirements

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

No operating limits are required for these emission units at this time.

Reporting and 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. These records shall show the following:

A. The permittee shall maintain daily records on the amount of metal processed through the Manual Shakeout (EU 107).

B. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110)

(pounds).

The daily emissions of individual HAPs from the Disa A & B Shakeout (EU 109), the 20 x 26 Shakeout (EU 108) , the Manual Shakeout (EU 107) and the Disa C Shakeout (EU 110) shall be calculated by using the following equations:

Ebe = 0.0268 lb/ton x TMPS

Eto = 0.0221 lb/ton x TMPS

Efo = 0.0257 lb/ton x TMPS

Etoh = 0.125 lb/ton x TMPS

Ema = (0.30 lb/ton x 0.021/100) x TMPS

Etm = (0.30 lb/ton x 0.024/100) x TMPS

Where,

Ebe = pounds of benzene emitted, Eto = pounds of toluene emitted, Efo = pounds of formaldehyde emitted, Etoh = pounds of total organic HAP, Ema = pounds of manganese emitted, Etm = pounds of total metal HAP emitted

TMPS = total tons metal processed in shakeouts (Disa A&B, Disa C, 20x26, and Manual) each day

0.0268 lb/ton = emission factor for benzene emissions from shakeout[1]

0.0221 lb/ton = emission factor for toluene emissions from shakeout[1]

0.0257 lb/ton = emission factor for formaldehyde emissions from shakeout[1]

0.125 lb/ton = emission factor for total organic HAP (excluding benzene, toluene, formaldehyde) emissions from shakeout[1]

0.30 lb/ton = controlled PM emission factor for metal shakeout[2]

0.021 = manganese content, percentage of PM emissions from shakeout[3]

0.024 = total HAP metal content, percentage of PM emissions from shakeout[3]

[1] From U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table 5-4, (BID)

[2] From BID, Table 5-6

[3] From BID, Table 5-7

The daily emissions of Total HAP from the Disa A & B Shakeout (EU 109), the 20 x 26 Shakeout (EU 108), the Manual Shakeout (EU 107) and the Disa C Shakeout (EU 110) shall be calculated by summing the emissions of individual HAP.

C. The permittee shall maintain the following monthly records:

i. The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124),

Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

ii. The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iii. The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

iv. The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

D. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

E. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

F. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 88-A-014-S3

Emission Point Characteristics

This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 83
Stack Diameter (inches, dia.): 31
Exhaust Flow Rate (scfm): 25,200
Exhaust Temperature (°F): 70
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 88-A-014-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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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)

CAM Plan for CE-304 Baghouse
This emission point shall conform to the conditions listed below

Dust collector Parameters
• Associated Emission Units: EU 107, Shakeout, EU118, Manual Mulling, EU129, Manual Return Sand, EU154, Manual Muller Bins
• Associated Emission Point: EP205
• Pollutants Controlled: PM, PM10

Applicable Requirements
See Iowa DNR Construction Permit 88-A-014-S3

Monitoring Approach
General Monitoring Guidelines
• CAM involves the observation of control equipment compliance indicators, such as visible emissions and pressure drop. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
• Monitoring is not required during periods of time greater than one day in which the source does not operate.
• If weather prevents visible emissions monitoring, the observer will note the weather conditions on the form used to record monitoring. If an observation is necessary to meet the required weekly monitoring, at least three attempts will be made to retake the observation throughout the day. If unsuccessful that day due to weather, an observation will be made the next day the weather permits.

Excursion from Compliance Indicators
• An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
• Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)
• Corrective actions will result in one of the following:
- If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
- If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
    - For visible emissions, if corrective action does not return the observation to no visible emissions, a Method 9 observation is required to determine opacity.
    - If a Method 9 observation is made that exceeds the indicator opacity, than an indicator opacity exceedance has occurred. The indicator opacity for this emission point is 10%.
    - In addition, if a Method 9 observation is made that exceeds the opacity permit limit, then a violation has also occurred.

• If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:

- Continue corrective actions.
- Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- Promptly orally report the indicator opacity exceedance to field office of IDNR; Within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of IDNR.
- Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
- Conduct source testing within 90 days of the excursion to demonstrate compliance.
  - If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
  - If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
- Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

• Visible Emissions
- Observation of no visible emissions.

• Differential Pressure
- Acceptable indicator range: 5" to 8" W.C.

Monitoring Methods

• Daily
- Check for dust collector differential pressure.

• Weekly
- Observe for visible emissions during material handling of unit.

• Monthly
- Inspect dust collector cleaning sequence.
- Check hopper function and performance.

• Quarterly
- Inspect bags for leaks and wear.

• Semi-Annually
- Inspect all dust collector components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

Performance Criteria

Data Representativeness

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions. A differential pressure not within

the acceptable indicator range could indicate reduced performance by the dust collector and potentially an increase in particulate emissions.

Record Keeping and Reporting (Verification of Operational Status)

• Fairfield Casting will maintain records of the following:
- Daily logs of differential pressure readings.
- Weekly logs of emissions observations and differential pressure.
- All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement.
- All corrective actions resulting from compliance indicators and inspections and maintenance.
- Excursion, indicator opacity exceedance, and excess emissions reports.

• Records will be kept for at least five years and be available upon request.

Quality Control

• The dust collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.
• Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

• Manual log entries are made based on gauge readings and the observation (or not) of visible emissions.
• Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 111F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 111, EU 113, EU 114-111F
Emissions Control Equipment ID Number: CE 311
Emissions Control Equipment Description: Cartridge Filter

Emission Unit vented through this Emission Point: EU 111, EU 113, EU 114-111F
Emission Unit Description: Tumbler 1; Castings
Tumbler 2; Castings
Grinding; Castings
Raw Material/Fuel: Metal Castings
Rated Capacity: 9.0 tons/hr each tumbler, 6.88 tons/hr Grinding; Castings

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 Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 112F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 112, EU 114-112F
Emissions Control Equipment ID Number: CE 315
Emissions Control Equipment Description: Cartridge Filter

Emission Unit vented through this Emission Point: EU 112, EU 114-112F
Emission Unit Description: Tumblers 3 & 4; Castings
Grinding; Castings
Raw Material/Fuel: Metal Castings
Rated Capacity: 7.5 tons/hr Tumblers, 6.88 tons/hr Grinding; Castings

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 Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 114F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 114-114F
Emissions Control Equipment ID Number: CE 314
Emissions Control Equipment Description: Cartridge Filter

Emission Unit vented through this Emission Point: EU 114-114F
Emission Unit Description: Grinding; Castings
Raw Material/Fuel: Metal Castings
Rated Capacity: 6.88 tons/hr Grinding; Castings

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 Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 208

Associated Equipment

Associated Emission Unit ID Numbers: EU 117AB, EU 153
Emissions Control Equipment ID Number: CE 307
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU 117AB
Emission Unit Description: Disa A & B Muller
Raw Material/Fuel: Sand
Rated Capacity: 70 tons/hr

Emission Unit vented through this Emission Point: EU 153
Emission Unit Description: Manual Dump Station
Raw Material/Fuel: Sand
Rated Capacity: 70 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 Limits: 40 %(1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 95-A-380-S2

(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 (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.3(4)6
Iowa DNR Construction Permit 95-A-380-S2

Pollutant: PM-10
Emission Limit(s): 1.96 lbs/hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-380-S2

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

Operating Limits

Operating limits for this emission unit shall be:

A. The total throughput of each emission unit listed in this permit shall not exceed 70 tons per hour.

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.

A. The date, the total hours of operation for the emission units listed in this permit, and the total throughput of sand for the emission units listed in this permit.

B. The total hourly sand throughput for the emission units listed in this permit.

Authority for Requirement: Iowa DNR Construction Permit 95-A-380-S2

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 60
Stack Diameter (inches, dia.): 24
Exhaust Flow Rate (scfm): 22,900
Exhaust Temperature (°F): 70
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 95-A-380-S2

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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)

CAM Plan for CE-307 Baghouse
This emission point shall conform to the conditions listed below

Dust collector Parameters
• Associated Emission Units: EU 117AB, Disa A & B Muller, EU 153, Manual Dump Station
• Associated Emission Point: EP208
• Pollutants Controlled: PM, PM10

Applicable Requirements
See Iowa DNR Construction Permit 95-A-380-S2

Monitoring Approach
General Monitoring Guidelines
• CAM involves the observation of control equipment compliance indicators, such as visible emissions and pressure drop. This plan defines acceptable ranges for these indicators. CAM also includes control equipment maintenance and inspections. Maintenance and inspections that will facilitate consistent control equipment operations are identified in this plan.
• Monitoring is not required during periods of time greater than one day in which the source does not operate.
• If weather prevents visible emissions monitoring, the observer will note the weather conditions on the form used to record monitoring. If an observation is necessary to meet the required weekly monitoring, at least three attempts will be made to retake the observation throughout the day. If unsuccessful that day due to weather, an observation will be made the next day the weather permits.

Excursion from Compliance Indicators
• An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a deviation or violation of applicable permit terms, conditions, and/or requirements.
• Fairfield Casting will take corrective action in accordance with the severity of the excursion. Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion. (Abnormal conditions discovered through equipment inspection and maintenance also require implementation of remediation within eight hours.)
• Corrective actions will result in one of the following:
  - If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
  - If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
    - For visible emissions, if corrective action does not return the observation to no visible emissions, a Method 9 observation is required to determine opacity.
    - If a Method 9 observation is made that exceeds the indicator opacity, than an indicator opacity exceedance has occurred. The indicator opacity for this emission point is 10%.
    - In addition, if a Method 9 observation is made that exceeds the opacity permit limit, then a violation has also occurred.

• If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Fairfield Casting will perform the following follow-up actions, *as applicable*:

- Continue corrective actions.
- Promptly orally report the excursion to the IDNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- Promptly orally report the indicator opacity exceedance to field office of IDNR; Within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of IDNR.
- Promptly orally report excess emissions to field office of IDNR (if due to other than startup, shutdown, or cleaning); Within seven days of the excess emissions, file a written excess emissions report with both field office and central office (Compliance Unit) of IDNR.
- Conduct source testing within 90 days of the excursion to demonstrate compliance.
  - If the test demonstrates compliance with emission limits, Fairfield Casting will determine new indicator ranges for monitoring.
  - If the test demonstrates noncompliance with emission limits, Fairfield Casting will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
- Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in IDNR semi-annual monitoring and annual compliance certification reports.

Compliance Indicator Ranges

• Visible Emissions
- Observation of no visible emissions.

• Differential Pressure
- Acceptable indicator range: 5" to 8" W.C.

Monitoring Methods

• Daily
- Check for dust collector differential pressure.

• Weekly
- Observe for visible emissions during material handling of unit.

• Monthly
- Inspect dust collector cleaning sequence.
- Check hopper function and performance.

• Quarterly
- Inspect bags for leaks and wear.

• Semi-Annually
- Inspect all dust collector components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

Performance Criteria

Data Representativeness

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions. A differential pressure not within

the acceptable indicator range could indicate reduced performance by the dust collector and potentially an increase in particulate emissions.

Record Keeping and Reporting (Verification of Operational Status)

• Fairfield Casting will maintain records of the following:
- Daily logs of differential pressure readings.
- Weekly logs of emissions observations and differential pressure.
- All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement.
- All corrective actions resulting from compliance indicators and inspections and maintenance.
- Excursion, indicator opacity exceedance, and excess emissions reports.

• Records will be kept for at least five years and be available upon request.

Quality Control

• The dust collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.
• Fairfield Casting will maintain an adequate inventory of spare parts.

Data Collection Procedures

• Manual log entries are made based on gauge readings and the observation (or not) of visible emissions.
• Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 119F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 119

Emission Unit vented through this Emission Point: EU 119
Emission Unit Description: Prepared Sand Transfer
Raw Material/Fuel: Sand
Rated Capacity: 100.0 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 Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 120F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 120

Emission Unit vented through this Emission Point: EU 120
Emission Unit Description: Manual Mold
Raw Material/Fuel: Mold Sand
Rated Capacity: 43.69 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 Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 122F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 122

Emission Unit vented through this Emission Point: EU 122
Emission Unit Description: Resin Sand Storage
Raw Material/Fuel: Resin Sand
Rated Capacity: 60.0 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 Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 211

Associated Equipment

Associated Emission Unit ID Numbers: EU 123
Emissions Control Equipment ID Number: CE 309
Emissions Control Equipment Description: Bag Filter

Emission Unit vented through this Emission Point: EU 123
Emission Unit Description: Core Sand Storage
Raw Material/Fuel: Mold/Core Material
Rated Capacity: 60.00 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 Limits: 40 %(1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 86-A-043-S2

(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 (PM)
Emission Limit(s): 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 86-A-043-S2

Pollutant: PM-10
Emission Limit(s): 0.36 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 86-A-043-S2

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 25
Stack Diameter (inches, dia.): 8
Exhaust Flow Rate (scfm): 800
Exhaust Temperature (°F): 70
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 86-A-043-S2

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 the plan must 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 124F (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: EU 124

Emission Unit vented through this Emission Point: EU 124
Emission Unit Description: Shell Core Making
Raw Material/Fuel: Sand
Rated Capacity: 0.738 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 Limits: 40 % (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 09-A-507

(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 (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 09-A-507

Pollutant: Lead (Pb)
Emission Limits: 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-507

Pollutant: Manganese Compounds
Emission Limits: 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-507

Pollutant: Hexane
Emission Limits: 9.02 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-507

Pollutant: Single HAP (3)
Emission Limits: 9.32 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 09-A-507

Pollutant: Total HAP
Emission Limits: 22.31 tons/yr [(2)]
Authority for Requirement: Iowa DNR Construction Permit 09-A-507

(2) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

(3) Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

Operational Limits & Requirements

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

No operating limits are required for these emission units at this time.

Reporting and 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. These records shall show the following:

A. The permittee shall maintain daily records on the amount of sand used in the emissions unit. A record shall be maintained on the identification, the VOC content and the HAP content of the sand used in the shell core making.

B. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

The daily emissions of individual HAPs from the Shell Core Making (EU 124) shall be calculated by using the following equation:

Eph = (PC / 100) x TS x 2000 x 3.6 lbs phenol/ 100 lbs of binder chemical

Where,

Eph = pounds of phenol emitted

PC = percent resin in the core sand (e.g. 3%)

TS = tons of sand used in the core making

2000 = converts tons to pounds

3.6 lbs/100 lbs of binder chemical = Emission Factor for shell core making (phenolic-novolac flake binder system) from U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002, Table B-6.

C. The permittee shall maintain the following monthly records:

i The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

ii The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iii The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

iv The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

D. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

E. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

F. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line

(EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition C above, when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 09-A-507

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 238 - Exhaust

Associated Equipment

Associated Emission Unit ID Numbers: EU 126

Emission Unit vented through this Emission Point: EU 126
Emission Unit Description: Isocure Core Making
Raw Material/Fuel: Sand
Rated Capacity: 1.5 tons core sand per hour (Maximum Capacity)

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 Limits: 40 % (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 05-A-564-S2

(1) An exceedence of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 05-A-564-S2

Pollutant: PM-10
Emission Limit(s): 0.052 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 29.45 tons/yr
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

Pollutant: Lead (Pb)
Emission Limit(s): 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

Pollutant: Manganese Compounds
Emission Limit(s): 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

Pollutant: Hexane
Emission Limit(s): 9.02 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

Pollutant: Single HAP [3]
Emission Limit(s): 9.32 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

Pollutant: Total HAPs
Emission Limit(s): 22.31 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

(2) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

(3) Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

Operational Limits & Requirements

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

Operating Limits

Operating limits for these emission units shall be:

A. The equipment covered by this construction permit (05-A-564-S2) includes the following core making machines: Gaylord SATB 15-5, Gaylord SATB 30-5, HS-22, HP-44, Alpha Set and the CB-22-SA machine. Installation of a new core making machine may require a modification to this permit.

B. The amount of Isocure resin part I used in these emissions units shall not exceed 134,858 pounds in any rolling twelve-month period.

C. The amount of Isocure resin part II used in these emissions units shall not exceed 111,060 pounds in any rolling twelve-month period.

D. The amount of Isofast Catalyst 705 shall not exceed 16,031 pounds in any rolling twelve-month period.

E. The amount of Zip-Slip Release Agent used shall not exceed 1000 pounds in any rolling twelve-month period. It shall be assumed that the VOC content of the Zip-Slip Release Agent is 100%.

F. The Zip-Slip Release Agent used in the coremaking process shall not contain any HAPs [1].

G. The catalyst used in the coremaking process shall not contain any HAPs [1].

H. This permit is based on information provided by the permittee that only Isocure resins (a phenolic urethane cold box binder system) shall be used in the core making machines. Prior to using other binder systems that contain HAP, the permittee shall notify the Iowa DNR, Air Quality Bureau in writing.

(1) Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act. For a list of HAPs, please refer to Table A that is attached to Form 112(g) which is part of the Air Construction Permit Application or contact the Iowa DNR - Air Quality Bureau.

Authority for Requirement: Iowa DNR Construction Permit 05-A-564-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. These records shall show the following

A. The permittee shall maintain a current list of all resins, catalyst and other chemicals (e.g. Zip-Slip Release Agent) in use for this emissions unit. This list shall include: material safety data sheets (MSDS), manufacturer's product specifications, and material VOC content reports for each resin, catalyst, and release agent used, showing at least the product manufacturer, product name and code, and VOC and HAP content.

B. The permittee shall maintain the following daily records on the Isocure coremaking machines:

i. The amount of sand used (pounds);

ii. The amount of resin and catalyst used (pounds). This shall be determined in the following way:

a. Pounds of Total Resin = (1.6 / 100) x Pounds of Sand

Where, 1.6 is the maximum percentage of total Isocure resin in the mixed sand.

b. Pounds of Isocure Resin Part I = (55 / 100) x Pounds of Total Resin

Where, 55 is the percent of Isocure Resin Part I in the total resin.

c. Pounds of Isocure Resin Part II = (45/ 100) x Pounds of Total Resin

Where, 45 is the percent of Isocure Resin Part II in the total resin.

d. Pounds of catalyst = 1.5 x (pounds of sand/ 2000)

Where, 1.5 is the amount of catalyst used in pounds per ton of sand.

iii. The emission rate of each individual HAP from the Isocure coremaking machines (pounds);

iv. The emission rate of total HAP from the Isocure coremaking machines (pounds).

C. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

D. The permittee shall maintain the following monthly records:

i The amount of Zip-Slip Release Agent used (pounds);

ii The rolling 12-month total of the Zip-Slip Release Agent used (pounds);

iii The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iv The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

v The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

vi The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

E. The daily emissions of individual HAPs from the Isocure coremaking machines shall be calculated by using the following equations:

$Eph = \sum_i \; 2/100 \times P_i /100 \times R_i$

$Efo = \sum_i \; 2/100 \times FO_i /100 \times R_i$

$Ena = \sum_i \; 9/100 \times NA_i /100 \times R_i$

$Ecu = \sum_i \; 9/100 \times CU_i /100 \times R_i$

$Exy = \sum_i \; 9/100 \times XY_i /100 \times R_i$

Where,

Eph = pounds of phenol emitted, Efo = pounds of formaldehyde emitted, Ena = pounds of naphthalene emitted, Ecu = pounds of cumene emitted, Exy = pounds of xylene emitted

P_i = percent (%) of phenol in resin i, FO_i = percent (%) of formaldehyde in resin i, NA_i = percent (%) of naphthalene in resin i, CU_i = percent (%) of cumene in resin i, XY_i = percent (%) of xylene in resin i.

R_i = amount of resin type i used during the day (pounds)

2 = percent of phenol and formaldehyde emitted during coremaking, from U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002,Table B-5

9 = percent of naphthalene, cumene, and xylene emitted during coremaking, from U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002,Table B-5

F. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

G. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition D above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

H. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition D above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

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

Stack Height, (ft, from the ground): 27.92
Stack Opening, (inches, dia.): 26
Exhaust Flow Rate (scfm): 4,600
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed Discharge
Authority for Requirement: Iowa DNR Construction Permit 05-A-564-S2

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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.

The following equipment vents through this emission point: Six coremaking machines, Gaylord SATB 15-5, Gaylord SATB 30-5, HS-22, HP-44, CB-22-SA and the Alpha Set.

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 239 - Exhaust

Associated Equipment

Associated Emission Unit ID Numbers: EU 126

Emission Unit vented through this Emission Point: EU 126
Emission Unit Description: Isocure Core Making
Raw Material/Fuel: Sand
Rated Capacity: 1.5 tons core sand per hour (Maximum Capacity)

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 Limits: 40 % (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 05-A-565-S2

(1) An exceedence of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 05-A-565-S2

Pollutant: PM-10
Emission Limit(s): 0.052 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 29.45 tons/yr
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

Pollutant: Lead (Pb)
Emission Limit(s): 8.19 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

Pollutant: Manganese Compounds
Emission Limit(s): 9.04 tons/yr (2)
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

Pollutant: Hexane
Emission Limit(s): 9.02 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

Pollutant: Single HAP[3]
Emission Limit(s): 9.32 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

Pollutant: Total HAPs
Emission Limit(s): 22.31 tons/yr [2]
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

(2) Limits apply to the following emission units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110). These limits are established to make the facility an area source of HAP emissions. The limits are combined limits for these emission units.

(3) Each individual HAP with the exception of lead compounds, manganese compounds and hexane.

Operational Limits & Requirements

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

Operating Limits

Operating limits for these emission units shall be:

A. The equipment covered by this construction permit (05-A-565-S2) includes the following core making machines: Gaylord SATB 15-5, Gaylord SATB 30-5, HS-22, HP-44, Alpha Set and the CB-22-SA machine. Installation of a new core making machine may require a modification to this permit.

B. The amount of Isocure resin part I used in these emissions units shall not exceed 134,858 pounds in any rolling twelve-month period.

C. The amount of Isocure resin part II used in these emissions units shall not exceed 111,060 pounds in any rolling twelve-month period.

D. The amount of Isofast Catalyst 705 shall not exceed 16,031 pounds in any rolling twelve-month period.

E. The amount of Zip-Slip Release Agent used shall not exceed 1000 pounds in any rolling twelve-month period. It shall be assumed that the VOC content of the Zip-Slip Release Agent is 100%.

F. The Zip-Slip Release Agent used in the coremaking process shall not contain any HAPs [1].

G. The catalyst used in the coremaking process shall not contain any HAPs [1].

H. This permit is based on information provided by the permittee that only Isocure resins (a phenolic urethane cold box binder system) shall be used in the core making machines. Prior to using other binder systems that contain HAP, the permittee shall notify the Iowa DNR, Air Quality Bureau in writing.

(1) Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act. For a list of HAPs, please refer to Table A that is attached to Form 112(g) which is part of the Air Construction Permit Application or contact the Iowa DNR - Air Quality Bureau.

Authority for Requirement: Iowa DNR Construction Permit 05-A-565-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. These records shall show the following

A. The permittee shall maintain a current list of all resins, catalyst and other chemicals (e.g. Zip-Slip Release Agent) in use for this emissions unit. This list shall include: material safety data sheets (MSDS), manufacturer's product specifications, and material VOC content reports for each resin, catalyst, and release agent used, showing at least the product manufacturer, product name and code, and VOC and HAP content.

B. The permittee shall maintain the following daily records on the Isocure coremaking machines:

i. The amount of sand used (pounds);

ii. The amount of resin and catalyst used (pounds). This shall be determined in the following way:

a. Pounds of Total Resin = (1.6 / 100) x Pounds of Sand

Where, 1.6 is the maximum percentage of total Isocure resin in the mixed sand.

b. Pounds of Isocure Resin Part I = (55 / 100) x Pounds of Total Resin

Where, 55 is the percent of Isocure Resin Part I in the total resin.

c. Pounds of Isocure Resin Part II = (45/ 100) x Pounds of Total Resin

Where, 45 is the percent of Isocure Resin Part II in the total resin.

d. Pounds of catalyst = 1.5 x (pounds of sand/ 2000)

Where, 1.5 is the amount of catalyst used in pounds per ton of sand.

iii. The emission rate of each individual HAP from the Isocure coremaking machines (pounds);

iv. The emission rate of total HAP from the Isocure coremaking machines (pounds).

C. The permittee shall maintain daily records on the emissions of individual and total HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (pounds).

D. The permittee shall maintain the following monthly records:

i The amount of Zip-Slip Release Agent used (pounds);

ii The rolling 12-month total of the Zip-Slip Release Agent used (pounds);

iii The emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

iv The rolling, 12-month total of the emission rate of each individual HAP from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons);

v The emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons); and

vi The rolling, 12-month total of the emission rate of total HAPs from the following group of emissions units: Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) (tons).

E. The daily emissions of individual HAPs from the Isocure coremaking machines shall be calculated by using the following equations:

$Eph = \sum_i \; 2/100 \times P_i /100 \times R_i$

$Efo = \sum_i \; 2/100 \times FO_i /100 \times R_i$

$Ena = \sum_i \; 9/100 \times NA_i /100 \times R_i$

$Ecu = \sum_i \; 9/100 \times CU_i /100 \times R_i$

$Exy = \sum_i \; 9/100 \times XY_i /100 \times R_i$

Where,

Eph = pounds of phenol emitted, Efo = pounds of formaldehyde emitted, Ena = pounds of naphthalene emitted, Ecu = pounds of cumene emitted, Exy = pounds of xylene emitted

P_i = percent (%) of phenol in resin i, FO_i = percent (%) of formaldehyde in resin i, NA_i = percent (%) of naphthalene in resin i, CU_i = percent (%) of cumene in resin i, XY_i = percent (%) of xylene in resin i.

R_i = amount of resin type i used during the day (pounds)

2 = percent of phenol and formaldehyde emitted during coremaking, from U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002,Table B-5

9 = percent of naphthalene, cumene, and xylene emitted during coremaking, from U. S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries -Background Information for Proposed Standards (EPA 453/R-02-013), December 2002,Table B-5

F. The permittee shall submit reports that identify all exceedances of the rolling 12-month emissions limitations for HAPs from Emission Limits section above. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

G. If the rolling, 12-month total of any individual HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 7.0 tons per year, the permittee shall maintain the following daily records:

i The daily emission rate of individual HAP from the emissions units.

ii. Beginning with the first day after the emission rate of the individual HAP exceeds 7.0 tons per year, the rolling, 365-day total of the individual HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition D above when the rolling 365-day total of individual HAP emissions is less than 7.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which individual HAP emissions are less than the 7.0 tpy threshold.

H. If the rolling, 12-month total of total HAP emissions from Manual Pour and Cool Line (EU 104), Disa A & B Mold, Pour and Cool Line (EU 105), Disa C Mold, Pour and Cool Line (EU 106), Shell Coremaking (EU 124), Isocure Coremaking (EU 126), Shakeout (EU 107), 20 x 26 Shakeout (EU 108), Disa A & B Shakeout (EU 109), and Disa C Shakeout (EU 110) exceeds 17.0 tons per year, the permittee shall maintain the following daily records:

i. The daily emission rate of total HAPs from the emissions units.

ii. Beginning with the first day after the emission rate of the total HAPs exceeds 17.0 tons per year, the rolling, 365-day total of total HAP emissions.

The permittee may return to the monthly recordkeeping required in Condition D above when the rolling 365-day total of total HAP emissions is less than 17.0 tons. The monthly recordkeeping requirement will go back into effect beginning on the first day of the calendar month that follows the day on which total HAP emissions are less than the 17.0 tpy threshold.

Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

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

Stack Height, (ft, from the ground): 26.83
Stack Opening, (inches, dia.): 26
Exhaust Flow Rate (scfm): 6,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed Discharge
Authority for Requirement: Iowa DNR Construction Permit 05-A-565-S2

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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.

The following equipment vents through this emission point: Six coremaking machines, Gaylord SATB 15-5, Gaylord SATB 30-5, HS-22, HP-44, CB-22-SA and the Alpha Set.

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 147F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 147

Emission Unit vented through this Emission Point: EU 147
Emission Unit Description: Haul Road
Raw Material/Fuel: VMT
Rated Capacity: 2.2 VMT/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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 148F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 148

Emission Unit vented through this Emission Point: EU 148
Emission Unit Description: Charging Chute
Raw Material/Fuel: Scrap Iron
Rated Capacity: 20 ton/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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 149F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 149

Emission Unit vented through this Emission Point: EU 149
Emission Unit Description: Coke Storage Pile
Raw Material/Fuel: Coke
Rated Capacity: 2.34 ton/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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 150F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 150

Emission Unit vented through this Emission Point: EU 150
Emission Unit Description: Limestone Storage Pile
Raw Material/Fuel: Limestone
Rated Capacity: 0.8 ton/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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 230-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 157-Vent 230

Emission Unit vented through this Emission Point: EU 157-Vent 230
Emission Unit Description: Metal Transfers
Raw Material/Fuel: Iron
Rated Capacity: 13.5 tons of Metal/hour

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 Limits: 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 04-A-386

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of **10%** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2) "a"
Iowa DNR Construction Permit 04-A-386

Pollutant: PM-10
Emission Limit(s): 0.05 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 04-A-386

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 29
Stack Diameter (inches, dia.): 55.5
Exhaust Flow Rate (scfm): 16,800
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical unobstructed
Authority for Requirement: Iowa DNR Construction Permit 04-A-386

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 231-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 157-Vent 231

Emission Unit vented through this Emission Point: EU 157-Vent 231
Emission Unit Description: Metal Transfers
Raw Material/Fuel: Iron
Rated Capacity: 13.5 tons of Metal/hour

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 Limits: 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 04-A-387

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of **10%** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 04-A-387

Pollutant: PM-10
Emission Limit(s): 0.12 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 04-A-387

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 29
Stack Diameter (inches, dia.): 55.5
Exhaust Flow Rate (scfm): 40,320
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical unobstructed
Authority for Requirement: Iowa DNR Construction Permit 04-A-387

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 232-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 157-Vent 232

Emission Unit vented through this Emission Point: EU 157-Vent 232
Emission Unit Description: Metal Transfers
Raw Material/Fuel: Iron
Rated Capacity: 13.5 tons of Metal/hour

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 Limits: 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 04-A-388

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of **10%** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 04-A-388

Pollutant: PM-10
Emission Limit(s): 0.053 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 04-A-388

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 29
Stack Diameter (inches, dia.): 38.5
Exhaust Flow Rate (scfm): 17,785
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical unobstructed
Authority for Requirement: Iowa DNR Construction Permit 04-A-388

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 233-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 157-Vent 233

Emission Unit vented through this Emission Point: EU 157-Vent 233
Emission Unit Description: Metal Transfers
Raw Material/Fuel: Iron
Rated Capacity: 13.5 tons of Metal/hour

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 Limits: 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 04-A-389

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of **10%** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 04-A-389

Pollutant: PM-10
Emission Limit(s): 0.050 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 04-A-389

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 29
Stack Diameter (inches, dia.): 38.5
Exhaust Flow Rate (scfm): 16,165
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical unobstructed
Authority for Requirement: Iowa DNR Construction Permit 04-A-389

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 234-Vent

Associated Equipment

Associated Emission Unit ID Numbers: EU 157-Vent 234

Emission Unit vented through this Emission Point: EU 157-Vent 234
Emission Unit Description: Metal Transfers
Raw Material/Fuel: Iron
Rated Capacity: 13.5 tons of Metal/hour

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 Limits: 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 04-A-390

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of **10%** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 04-A-390

Pollutant: PM-10
Emission Limit(s): 0.051 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 04-A-390

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 31
Stack Diameter (inches, dia.): 38.5
Exhaust Flow Rate (scfm): 17,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical unobstructed
Authority for Requirement: Iowa DNR Construction Permit 04-A-390

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 158F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 158

Emission Unit vented through this Emission Point: EU 158
Emission Unit Description: Yard Traffic
Raw Material/Fuel: VMT
Rated Capacity: 1.1 VMT/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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 159F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 159

Emission Unit vented through this Emission Point: EU 159
Emission Unit Description: Temporary Sand Storage Pile
Raw Material/Fuel: Sand
Rated Capacity: 5.66 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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 160F Fugitive Emissions (External)

Associated Equipment

Associated Emission Unit ID Numbers: EU 160

Emission Unit vented through this Emission Point: EU 160
Emission Unit Description: Permanent Sand Storage Pile
Raw Material/Fuel: Sand
Rated Capacity: 5.66 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: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered , repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP 161

Associated Equipment

Associated Emission Unit ID Numbers: EU 146, EU 161A, EU 161B, EU 161C & EU 161D
Emissions Control Equipment ID Number: CE 310
Emissions Control Equipment Description: Baghouse *
* CE-310, baghouse will need a CAM plan, but the control has not been installed on this emission point as of 2019.

Emission Unit vented through this Emission Point: EU 146, EU 161A, EU 161B, EU 161C & EU 161D
Emission Unit Description: Tumblers 5 & 6, Autoline Cooler, Disa B Cooler, Disa A Cooler & Disa C Cooler
Raw Material/Fuel: Metal
Rated Capacity: 18 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 Limits: 40 % (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 18-A-220

(1) An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or 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 Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM-10
Emission Limit(s): 0.28 lbs/hr
Authority for Requirement: Iowa DNR Construction Permit 18-A-220

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1 gr/dscf, 0.28 lbs/hr
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 18-A-220

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

Operating Requirements and Associated Recordkeeping

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 Department. Records shall be legible and maintained in an

orderly manner.

A. The permittee shall inspect and maintain the control equipment according to the facility's operation and maintenance plan or manufacturer's specifications with inspections occurring at a minimum of once per calendar year.

B. The facility shall maintain a log of all maintenance and inspection activities performed on the control equipment, CE 310. 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 18-A-220

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 90
Stack Diameter (inches, dia.): 48
Exhaust Flow Rate (scfm): 33,250
Exhaust Temperature (°F): 175
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 18-A-220

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 any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence 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 152

Associated Equipment

Associated Emission Unit ID Numbers: EU 152

Emission Unit vented through this Emission Point: EU 152
Emission Unit Description: Emergency Generator (400 kW)
Raw Material/Fuel: Fuel Oil
Rated Capacity: 28.6 gallons/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"
Iowa DNR Construction Permit 15-A-058

(1) An exceedance of the indicator opacity of 25% will require the owner or 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 Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.48 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 15-A-058

Pollutant: PM-10
Emission Limit(s): 2.48 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 15-A-058

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"b"
Iowa DNR Construction Permit 15-A-058

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

Operating Limits

Operating limits for this emission unit shall be:

A. This engine is limited to burning diesel fuel oil that meets the requirements of condition D, shown below.

B. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.

C. i. This engine is limited to operate as an emergency stationary internal combustion engine as defined in §63.6675 and in accordance with §63.6640(f). There is no time limit on the use of the engine in emergency situations provided that the operating hour limit established in Condition 14.B is not exceeded. In accordance with §63.6640(f), the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.

ii. The engine is also allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.

iii. The 50 hours per year allowed for non-emergency situations may be used for local demand response, provided that the conditions in §63.6640(f) (4) (ii) (A) through (E) are all met.

D. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel:

i. a maximum sulfur content of 15 ppm (0.0015%) by weight; and

ii. a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.

E. In accordance with §63.6625(f), the engine shall be equipped with a non-resettable hour meter.

F. In accordance with §63.6603(a) and Table 2d of Subpart ZZZZ as promulgated on January 30, 2013, the owner or operator must comply with the following requirements for this engine:

i. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the applicable non-startup emission limitations apply.

ii. Change the oil and filter annually [(1)];

iii. Inspect the air cleaner annually; and

iv. Inspect all hoses and belts annually and replace as necessary.

[(1)] The facility has the option to utilize an oil analysis program as describer in 63.6625(i) in order to extend the specified oil change requirement in Table 2d of Subpart ZZZZ as promulgated on January 30, 2013. The oil analysis must be done on the same frequency as the specified oil change requirement.

Operating Condition Monitoring and Recordkeeping

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 Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator shall maintain the following monthly records:

i. the number of hours that the engine operated for maintenance checks and readiness testing;

ii. the number of hours that the engine operated for allowed non-emergency operations;

iii. the total number of hours that the engine operated; and

iv. the rolling 12-month total amount of the number of hours that the engine operated.

B. The owner or operator shall maintain the following annual records:

i. the number of hours that the engine operated for maintenance checks and readiness testing; and

ii. the number of hours that the engine operated for allowed non-emergency operations.

C. For the fuel burned in this emissions unit, the owner or operator shall perform an analysis and shall maintain records on the sulfur content of each shipment of oil received. Alternatively, the owner or operator shall have the oil supplier provide analyses on the sulfur content of the oil received. The analysis does not have to be for each shipment of oil received, but shall be documented by receipts from the fuel supplier, a statement from the fuel supplier on the specification of the sulfur content of the purchased oil, or other supporting documentation.

Authority for Requirement: Iowa DNR Construction Permit 15-A-058

NESHAP:
The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(iii) this compression ignition emergency engine, located at an area source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

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

Emission Point Characteristics
This emission point shall conform to the conditions listed below.

Stack Height (ft. from the ground): 13
Stack Diameter (inches, dia.): 8
Exhaust Flow Rate (scfm): 1152
Exhaust Temperature (°F): 1100
Discharge Style: Vertical unobstructed
Authority for Requirement: Iowa DNR Construction Permit 15-A-058

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)

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, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, 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 Permitting & Standards Branch, 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 emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
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. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

    a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

    b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

    c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

    d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

    c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

    d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

    e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

    f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances 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
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-9526

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:

Iowa Compliance Officer
Air Branch
Enforcement and Compliance Assurance Division
U.S. EPA Region 7
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
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-8200

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
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(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: NESHAP

1. Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources
   http://www.ecfr.gov/cgi-bin/text-idx?SID=ebde13f66674a255f67a071a836b0f38&node=sp40.15.63.zzzzz&rgn=div6
2. Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
   http://www.ecfr.gov/cgi-bin/text-idx?SID=ebde13f66674a255f67a071a836b0f38&node=sp40.14.63.zzzz&rgn=div6