

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

**Name of Permitted Facility: Nichols Aluminum, LLC**  
**Facility Location: 2101 J.M. Morris Blvd., Davenport, IA 52802**  
**Air Quality Operating Permit Number: 03-TV-017R3**  
**Expiration Date: October 25, 2026**  
**Permit Renewal Application Deadline: April 25, 2026**

**EIQ Number: 92-4290**  
**Facility File Number: 82-01-089**

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**Responsible Official**

**Name: Bart Burds**  
**Title: Plant Manager**  
**Mailing Address: 2101 J.M. Morris Blvd, Davenport, IA 52802**  
**Phone #: 563-328-6321**

**Permit Contact Person for the Facility**

**Name: Brian McCabe**  
**Title: HSE Manager**  
**Mailing Address: 2101 J.M. Morris Blvd, Davenport, IA 52802**  
**Phone #: 563-529-5143**

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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. Two Title V permits are being issued for the Nichols Aluminum, LLC – Casting Operations (Plant No. 82-01-089) and Nichols Aluminum, LLC – Rolling Operations (Plant No. 82-01-017) facilities. These two facilities are considered one stationary source by the Iowa DNR. This permit is for Nichols Aluminum, LLC – Casting Operations, and another permit is being issued for Nichols Aluminum, LLC – Rolling Operations.

**For the Director of the Department of Natural Resources**



10/26/2021

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Marnie Stein, Supervisor of Air Operating Permits Section

Date

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## Abbreviations

|                 |                                               |
|-----------------|-----------------------------------------------|
| acfm .....      | actual cubic feet per minute                  |
| CFR .....       | Code of Federal Regulation                    |
| CE .....        | control equipment                             |
| CEM .....       | continuous emission monitor                   |
| °F .....        | degrees Fahrenheit                            |
| EIQ .....       | emissions inventory questionnaire             |
| EP .....        | emission point                                |
| EU .....        | emission unit                                 |
| gr./dscf .....  | grains per dry standard cubic foot            |
| IAC .....       | Iowa Administrative Code                      |
| Iowa DNR .....  | Iowa Department of Natural Resources          |
| MMCF .....      | million cubic feet                            |
| 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 <sub>10</sub> ..... | particulate matter ten microns or less in diameter |
| SO <sub>2</sub> .....  | sulfur dioxide                                     |
| NO <sub>x</sub> .....  | nitrogen oxides                                    |
| VOC .....              | volatile organic compound                          |
| CO .....               | carbon monoxide                                    |
| HAP .....              | hazardous air pollutant                            |

# I. Facility Description and Equipment List

Facility Name: Nichols Aluminum, LLC

Permit Number: 03-TV-017R3

Facility Description: Aluminum Sheet, Plate, and Foil (SIC 3353)

Secondary Nonferrous Metals (SIC 3341)

## Equipment List

| Emission Point | Emission Unit   | Emission Unit Description                               | DNR Construction Permit |
|----------------|-----------------|---------------------------------------------------------|-------------------------|
| 01             | 01              | Aluminum Shredder                                       | 92-A-218-S1             |
| 03             | 03              | Delacquering System                                     | 90-A-386-S8             |
|                | 03a             | Delacquering System (Natural Gas)                       |                         |
|                | 10              | Melting Furnace #3A (Sidewell)                          |                         |
| 04             | 04 <sup>1</sup> | Melting Furnace #1 (Main Hearth, Clean Charge Side)     | 02-A-008-S1             |
| 05             | 05 <sup>2</sup> | Melting Furnace #2 (Main Hearth, Clean Charge Side)     | 02-A-009-S1             |
| 08             | 08              | Three Stand Hot Mill                                    | 90-A-389-S2             |
| 10             | 10 <sup>3</sup> | Melting Furnace #3A (Main Hearth, Clean Charge Side)    | 16-A-289                |
| 13             | 13              | Two (2) Rotary Barrel Furnace/Assoc. Process            | 98-A-468-P4             |
|                | 23              | Two (2) Tardis Presses                                  |                         |
|                | 27              | Lime Silo                                               |                         |
| 14F            | 14              | Burner Ball Shaker (Vented Internally)                  |                         |
| 15a            | 15              | Refractory Curing Oven                                  | 96-A-287                |
| 15b            |                 |                                                         |                         |
| 16F            | 16              | Direct Fired Heaters > 1.8 MMBtu/hr (Vented Internally) |                         |
| 20             | 20              | Caster Water Pump Backup Engine                         |                         |
| 21             | 21              | Fire System Engine Combustion                           |                         |
| 26             | 26              | Emergency Lighting Generator                            |                         |
| 23             | 04              | Melting Furnace #1 (Sidewell, Dirty Charge Side)        | 02-A-491-S6             |
|                | 05              | Melting Furnace #2 (Sidewell, Dirty Charge Side)        |                         |
|                | 06              | Holding Furnace #1                                      |                         |
|                | 07              | Holding Furnace #2                                      |                         |
|                | 14              | Burner Ball Shaker                                      |                         |
|                | 24              | Caster Belt Brush                                       |                         |
|                | 25              | STAS Degasser                                           |                         |
| 03bF           | 03b             | Delacquering System In-Feed Conveyor                    | 02-A-491-S6             |
| Fugitives      | Fug Melt        | Fugitives from Melters                                  |                         |
|                | LGT             | Fugitive Losses from Volatile Liquids                   |                         |

<sup>1</sup> The main hearth (clean charge) side of the unit vents out of EP-04 while the sidewell (dirty charge) side vents out of EP-23.

<sup>2</sup> The main hearth (clean charge) side of the unit vents out of EP-05 while the sidewell (dirty charge) side vents out of EP-23.

<sup>3</sup> The main hearth (clean charge) side of the unit vents out of EP-10 while the sidewell (dirty charge) side vents out of EP-03.

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**Insignificant Activities Equipment List**

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| <b>Insignificant Emission Unit</b> | <b>Insignificant Emission Unit Description</b>                              |
|------------------------------------|-----------------------------------------------------------------------------|
| 17a                                | Direct Fired Heaters < 1.8 MMBtu/hr                                         |
| 17b                                | Indirect Fired Heaters < 10 MMBtu/hr                                        |
| Anodizing                          | Anodizing Station                                                           |
| HVY                                | Fugitive Losses from Heavy Liquids                                          |
| DFT                                | Diesel Storage Tanks (two 1,000 gallon, two 250 gallon, and one 200 gallon) |
| ROADS                              | Paved Haul Roads                                                            |

## II. Plant-Wide Conditions

Facility Name: Nichols Aluminum, LLC  
Permit Number: 03-TV-017R3

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

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### Permit Duration

The term of this permit is: 5 years from permit issuance  
Commencing on: October 26, 2021  
Ending on: October 25, 2026

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.

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### 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<sub>2</sub>): 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"

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## **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

### 40 CFR 63 Subpart ZZZZ Requirements

This facility is subject to Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Affected units are EU 20, EU 21, and EU 26 and specific applicable requirements are incorporated in the Emission Point Specific conditions.

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

#### 40 CFR 63 Subpart RRR Requirements

This facility is subject to 40 CFR 63 Subpart RRR - National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

- A. The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart A - General Provisions, and Subpart RRR – Secondary Aluminum Production.
- B. The permittee shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan per the monitoring requirements of 40 CFR §63.1510. The OM&M plan shall include the required information for secondary aluminum processing units as described in 40 CFR §63.1510(s).
- C. The following sources are subject to Subpart RRR requirements as a major source of hazardous air pollutants:

| Emission Point | Emission Unit | Emission Unit Description                           | Regulated As                                   |
|----------------|---------------|-----------------------------------------------------|------------------------------------------------|
| EP 01          | EU 01         | Aluminum Shredder                                   | Aluminum Scrap Shredder                        |
| EP 03          | EU 03         | Delaquering System                                  | Scrap Dryer/Delaquering Kiln/Decorating Kiln   |
|                | EU 03a        | Delaquering System (Natural Gas)                    | Scrap Dryer/Delaquering Kiln/Decorating Kiln   |
|                | EU 10         | Melting Furnace #3A_(Sidewell)                      | Charge Wells – Group 1 Furnace                 |
| EP 04          | EU 04         | Melting Furnace #1 (Main Hearth, Clean Charge Side) | Main Hearth – Group 1 Furnace                  |
| EP 05          | EU 05         | Melting Furnace #2 (Main Hearth, Clean Charge Side) | Main Hearth – Group 1 Furnace                  |
| EP 10          | EU 10         | Melting Furnace #3A (Main Hearth)                   | Main Hearth – Group 1 Furnace                  |
| EP 13          | EU 13         | Two (2) Rotary Barrel Furnace / Assoc. Process      | Group 1 Furnace                                |
| EP 23          | EU 04         | Melting Furnace #1 (Sidewell, Dirty Charge Side)    | Charge Wells – Group 1 Furnace                 |
|                | EU 05         | Melting Furnace #2 (Sidewell, Dirty Charge Side)    | Charge Wells – Group 1 Furnace                 |
|                | EU 06         | Holding Furnace #1                                  | Group 2 Furnace                                |
|                | EU 07         | Holding Furnace #2                                  | Group 1 Furnace                                |
|                | EU 25         | STAS Degasser                                       | In-Line Fluxer that does not use reactive flux |

### III. Emission Point-Specific Conditions

Facility Name: Nichols Aluminum, LLC

Permit Number: **03-TV-017R3**

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#### Associated Equipment

| Emission Unit ID | Description       | Maximum Rated Capacity | Control Equipment | DNR Construction Permit |
|------------------|-------------------|------------------------|-------------------|-------------------------|
| EU-01            | Aluminum Shredder | 95,300 lb/hr           | CE-01: Baghouse   | 92-A-218-S1             |

#### 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                              | lb/hr | ton/yr | Other Limits     | Authority for Requirement                              |
|----------------------------------------|-------|--------|------------------|--------------------------------------------------------|
| Opacity                                | NA    | NA     | 40% <sup>1</sup> | 92-A-218-S1, 567 IAC 23.3(2)"d"                        |
| Particulate Matter (PM <sub>10</sub> ) | 10.2  | 44.7   | 0.02 gr/dscf     | 92-A-218-S1                                            |
| Particulate Matter (PM) State          | 10.2  | 44.7   | 0.02 gr/dscf     | 92-A-218-S1, 567 IAC 23.1(4)"br", 40 CFR 63.1505(b)(1) |
| Particulate Matter (PM) Federal        | NA    | NA     | 0.01 gr/dscf     | 40 CFR 63.1505(b)(1), 567 IAC 23.1(4)"br"              |

<sup>1</sup>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).

#### National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The emission source is subject to 40 CFR 63 Subpart A – General Conditions and 40 CFR 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. The Permittee shall comply with all applicable requirements of Subpart RRR. This unit is regulated under Subpart RRR as an Aluminum Scrap Shredder. An Operation, Maintenance and Monitoring Plan is required for this source.

Authority for Requirement: 40 CFR 63 Subpart RRR, 567 IAC 23.1(4)"br"

### **Operating Requirements with 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. This aluminum shredder is limited to a maximum throughput of 95,300 pounds per hour, averaged over the hours the shredder is operated in a single day.
- B. The baghouse on this unit shall be operated whenever the shredder is in use.
- C. Record the number of hours the aluminum shredder is operated per day. Calculate the hourly average processing rate over the time period that the shredder operates in that day.
- D. Record the amount of aluminum processed in this shredder, in pounds per hour. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-218-S1

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

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

Stack Opening, (inches, dia.): 42

Exhaust Flow Rate (acfm): 60,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 92-A-218-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.*

#### **Stack Testing:**

Pollutant(s) – Particulate Matter (PM) – Federal

Stack Test to be Completed by – Every 5 years

Test Method – 40 CFR 60, Appendix A, Method 5

Authority for Requirement - 40 CFR 63 Subpart RRR

567C 23.1(4)"br"

<sup>1</sup> Last stack test performed on August 4, 2020

*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, or 60 days for 40 CFR 63 Subpart RRR required tests, of the completion of the testing. 567 IAC 25.1(7)*

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 03

### Associated Equipment

| Emission Unit ID | Description                     | Maximum Rated Capacity                  | Control Equipment                                                        |
|------------------|---------------------------------|-----------------------------------------|--------------------------------------------------------------------------|
| EU-03            | Delaquering Kiln                | 27.5 tons/hour<br>15.5 million Btu/hour | Lime-Injected Fabric Filter (CE-03)                                      |
|                  |                                 |                                         | Afterburner (CE-12)<br>4 burners for a combined<br>15.2 million Btu/hour |
| EU-10            | Melting Furnace #3A – Side Well | 17.29 tons/hour                         | Lime-Injected Fabric Filter (CE-03)                                      |

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

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

### **Emission Limits #1 – National Emission Standards for Hazardous Air Pollutants**

| Emission Unit                           | Pollutant                                           | Limits                              | Authority for Requirement                     |
|-----------------------------------------|-----------------------------------------------------|-------------------------------------|-----------------------------------------------|
| Delacquering Kiln (EU-03)               | Particulate Matter (PM) – Federal                   | 0.30 lb/ton of feed                 | 40 CFR §63.1505(e)<br><br>567 IAC 23.1(4)"br" |
|                                         | Total Hydrocarbons (THC), as Propane                | 0.20 lb/ton of feed                 |                                               |
|                                         | Dioxins and Furans Toxicity Equivalents (D/F TEQ)   | $7.0 \times 10^{-5}$ gr/ton of feed |                                               |
|                                         | Hydrogen Chloride (HCl)                             | 1.50 lb/ton of feed                 |                                               |
| Melting Furnace #3A (EU-10) – Side Well | Particulate Matter (PM) – Federal                   | 0.40 lb/ton of feed                 | 40 CFR §63.1505(i)<br><br>567 IAC 23.1(4)"br" |
|                                         | Dioxins and Furans (D/F) Toxicity Equivalents (TEQ) | $2.1 \times 10^{-4}$ gr/ton of feed |                                               |
|                                         | Hydrogen Chloride (HCl)                             | 0.40 lb/ton of feed                 |                                               |

### Emission Limits #2 – Emission Point 03

| Pollutant                         | lb/hr             | tons/yr           | Other Limits         | Authority for Requirement             |
|-----------------------------------|-------------------|-------------------|----------------------|---------------------------------------|
| Opacity                           | NA                | NA                | 40% <sup>1</sup>     | 567 IAC 23.3(2)"d"                    |
| PM <sub>10</sub>                  | 7.34              | NA                | NA                   | 90-A-386-S8                           |
| Particulate Matter (PM) – State   | 7.34              | NA                | 0.1 gr/dscf          | 90-A-386-S8,<br>567 IAC 23.3(2)"a"(1) |
| Sulfur Dioxide (SO <sub>2</sub> ) | NA                | NA                | 500 ppm <sub>v</sub> | 567 IAC 23.3(30)"e"                   |
| Volatile Organic Compounds (VOC)  | 8.90 <sup>2</sup> | 39.0 <sup>2</sup> | NA                   | 90-A-386-S8                           |

<sup>1</sup> 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).

<sup>2</sup> VOC limit is based on Non-Methane Total Hydrocarbons.

### Emission Limits #3 – Melting Furnace #3A (EU-10) – Side Well

| Pollutant                       | lb/hr | tons/yr | Other Limits | Authority for Requirement |
|---------------------------------|-------|---------|--------------|---------------------------|
| PM <sub>2.5</sub>               | 0.44  | NA      | NA           | 90-A-386-S8               |
| PM <sub>10</sub>                | 0.85  | NA      |              |                           |
| Particulate Matter (PM) – State | 0.85  | NA      |              |                           |

Authority for Requirement: 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"  
DNR Construction Permit 90-A-386-S8

### National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

A. The following subparts apply to the emission units associated with EP-03:

| Emission Unit ID  | Subpart | Title                                    | Type                                             | State Reference (567 IAC) | Federal Reference (40 CFR) |
|-------------------|---------|------------------------------------------|--------------------------------------------------|---------------------------|----------------------------|
| EU-03             | A       | General Provisions                       | NA                                               | 23.1(4)                   | §63.1 – §63.15             |
| EU-10 (Side Well) |         |                                          |                                                  |                           |                            |
| EU-03             | RRR     | NESHAP for Secondary Aluminum Production | Scrap Dryer / Delacquering Kiln / Decoating Kiln | 23.1(2)                   | §63.1500 - §63.1519        |
| EU-10 (Side Well) |         |                                          | Group 1 Furnace                                  |                           |                            |

Authority for Requirement: 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"

### **Operating Requirements with Associated 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. The operating requirements and associated recordkeeping for this permit shall be:*

- A. Melting Furnace #3A (EU-10) is limited to a maximum throughput of 360 tons of metal per calendar day.
  - i. The owner or operator shall record the total amount of metal, in tons, charged to Melting Furnace #3A (EU-10) on a calendar-day basis.
- B. Melting Furnace #3A (EU-10) is limited to a maximum throughput of 123,000 tons of metal per rolling 12-month period.
  - i. The owner or operator shall record the amount of metal, in tons, charged to Melting Furnace #3A (EU-10) on a monthly basis.
  - ii. The owner or operator shall calculate and record the amount of metal, in tons, charged to Melting Furnace #3A (EU-10) on a rolling 12-month basis.
- C. The afterburner (CE-12) associated with the Delacquering Kiln (EU-03) shall be fired by natural gas only.
- D. The owner or operator shall operate and maintain the afterburner (CE-12) and the lime-injected fabric filter according to the manufacturer's recommendations and specifications.
- E. The exhaust from the side well of Melting Furnace #3A (EU-10) and the exhaust from the afterburner (CE-12) shall be vented to the lime-injected fabric filter (CE-03).
- F. The owner or operator shall comply with the applicable requirements in 40 CFR Part 63, Subpart RRR [§63.1500 - §63.1519], including those not specifically mentioned in this permit.
  - i. In accordance with 40 CFR §63.1510(b), the owner or operator shall prepare and implement for each new and existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan, which shall contain the information specified in §63.1510(b)(1) through (8).
  - ii. In accordance with 40 CFR §63.1506(b), the owner or operator shall provide and maintain easily visible labels posted at the Delacquering Kiln (EU-03) and at the side well of Melting Furnace #3A (EU-10) that identifies the applicable emission limits and means of compliance, including:
    - 1. The type of affected source or emission unit.
    - 2. The applicable operational standard(s) and control method(s). This includes, but is not limited to, the type of charge to be used for a furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
    - 3. The operating temperature and design residence time for the afterburner (CE-12).

- iii. The owner or operator of a delacquering kiln with emissions controlled by an afterburner (CE-12) and a lime-injected fabric filter (CE-03) and of a group 1 furnace with emissions controlled by a lime-injected fabric filter, shall comply with the following requirements:
1. In accordance with §63.1510(g)(1), the owner or operator shall install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in Subpart A of Part 63.
    - a. The temperature monitoring device must meet the performance and equipment specifications listed in §63.1510(g)(2)(i) through (iv).
    - b. The owner or operator shall maintain the 3-hour block average operating temperature of the afterburner (CE-12) at or above the average temperature established during the most recent performance test, but no less than 1400 degrees Fahrenheit. The residence time in the combustion chamber shall be at least one second.
  2. The owner or operator shall operate the afterburner (CE-12) and lime-injected fabric filter (CE-03) in accordance with the OM&M plan.
  3. The owner or operator shall inspect the afterburner (CE-12) at least once a year and record the results. At a minimum, each inspection must comply with the requirements specified in §63.1510(g)(3)(i) through (xi).
  4. In accordance with 40 CFR §63.1510(f), the owner or operator of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements in Subpart RRR of Part 63 shall install, calibrate, maintain, and continuously operate a bag leak detection system.
    - a. The owner or operator shall initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan.
    - b. The owner or operator shall operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period.
      - i. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.
      - ii. If corrective action is required, each alarm shall be counted as a minimum of 1 hour.
      - iii. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

5. In accordance with 40 CFR §63.1510(h)(1), the owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in Subpart A of Part 63.
  - a. The temperature monitoring device must meet each of the performance and equipment specifications listed in §63.1510(h)(2)(i) through (iii).
  - b. The owner or operator shall maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the most recent performance test, plus 25 degrees Fahrenheit.
6. The owner or operator of a lime-injected fabric filter shall install, operate, and maintain a lime flow indicator to confirm that lime is free-flowing. If lime is found not be free-flowing, the owner or operator shall promptly initiate and complete corrective action.
7. The owner or operator shall at least once per month verify that the lime injection rate, in pounds per hour, is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test.
  - a. If the monthly check of the lime injection rate is below 90 percent, the owner or operator shall repair or adjust the lime injection system to restore normal operation within 45 days. The repair or replacement and the establishment of the new feeder setting(s) shall be documented in accordance with the recordkeeping requirements of §63.1517.
- iv. The owner or operator shall comply with the applicable notification, reporting, and recordkeeping requirements in 40 CFR §63.1515, §63.1516, and §63.1517, respectively.
- G. The pressure drop across the lime-injected fabric filter (CE-03) shall be maintained between 3 and 8 inches water column (WC).
  - i. The owner or operator shall monitor the pressure drop across the lime-injected fabric filter (CE-03) on a daily basis while the Delacquering Kiln (EU-03) and/or Melting Furnace #3A (EU-10) are in operation.
    1. The owner or operator shall maintain a log of the daily pressure drop readings in WC.
- H. The owner or operator shall keep a log of all maintenance and inspection activities performed on the lime-injected fabric filter (CE-03) and on the afterburner (CE-12). This log shall include, but shall not be limited to:
  - i. The date that any inspection and/or maintenance was performed on the control equipment;
  - ii. Any issues identified during the inspection;
  - iii. Any issues addressed during the maintenance activities; and
  - iv. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR construction Permit 90-A-386-S8

**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): 111,725

Exhaust Temperature (°F): 296

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR construction Permit 90-A-386-S8

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.*

**Compliance Demonstration Table for NESHAP**

| <b>Pollutant</b>             | <b>Compliance Methodology</b> | <b>Frequency</b>                  | <b>Test Run Time</b> | <b>Test Method</b>                   |
|------------------------------|-------------------------------|-----------------------------------|----------------------|--------------------------------------|
| Particulate Matter – Federal | Stack Testing                 | Once every 5 years <sup>1,2</sup> | See Footnote 3       | 40 CFR 60, Appendix A, Method 5      |
| (Dioxins/Furans)             | Stack Testing                 | Once every 5 years <sup>1,2</sup> | See Footnote 3       | 40 CFR 60, Appendix A, Method 23     |
| Hydrochloric Acid            | Stack Testing                 | Once every 5 years <sup>1,2</sup> | See Footnote 3       | 40 CFR 60, Appendix A, Method 26/26A |

<sup>1</sup>Most recent testing completed July 26-27, 2017.

<sup>2</sup>Periodic testing for Melting Furnace #3A (EU-10) shall be completed every 5 years following the initial test. Periodic testing for the Delacquering Kiln (EU-03) shall be completed every five years.

<sup>3</sup>As specified in 40 CFR §63.1511(b)(4), pollutant sampling for each run shall be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.

**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: 04 and 05

### Associated Equipment

| Emission Unit ID | Description                                            | Maximum Rated Capacity                   | Control Equipment | DNR Construction Permit |
|------------------|--------------------------------------------------------|------------------------------------------|-------------------|-------------------------|
| EU-04            | Melting Furnace #1<br>(Main Hearth, Clean Charge Side) | 34 MMBtu/hr,<br>408 tons<br>aluminum/day | None              | 02-A-008-S1             |
| EU-05            | Melting Furnace #2<br>(Main Hearth, Clean Charge Side) | 34 MMBtu/hr,<br>408 tons<br>aluminum/day | None              | 02-A-009-S1             |

### 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                          | lb/hr | ton/yr | Other Limits     | Authority for Requirement                          |
|------------------------------------|-------|--------|------------------|----------------------------------------------------|
| Opacity                            | NA    | NA     | 40% <sup>1</sup> | 02-A-008-S1,<br>02-A-009-S1,<br>567 IAC 23.3(2)"d" |
| Particulate Matter (PM)            | NA    | NA     | 0.1 gr/dscf      | 02-A-008-S1,<br>02-A-009-S1,<br>567 IAC 23.3(2)"a" |
| Sulfur Dioxide (SO <sub>2</sub> )  | NA    | NA     | 500 ppmv         | 02-A-008-S1,<br>02-A-009-S1,<br>567 IAC 23.3(3)"e" |
| Nitrogen Oxides (NO <sub>x</sub> ) | 6.5   | NA     | NA               | 02-A-008-S1,<br>02-A-009-S1                        |

<sup>1</sup>An exceedance of the indicator opacity of 25% emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The above listed emission source is subject to 40 CFR 63 Subpart A – General Conditions and 40 CFR 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. The Permittee shall comply with all applicable requirements of Subpart RRR. Melting Furnaces #1 and #2 are Group 1 Furnaces; however, the Main Hearth side of Melting Furnaces #1 and #2 (EP/EU-04 and EP/EU-05) only use clean charge and does not use flux. There are no NESHAP Subpart RRR requirements for the Main Hearth side of Melting Furnaces #1 and #2 (EP/EU-04 and EP/EU-05) at this time.

Authority for Requirement: 40 CFR 63 Subpart RRR, 567 IAC 23.1(4)"br",  
DNR Construction Permit 02-A-008-S1,  
DNR Construction Permit 02-A-009-S1

**Operational Limits & Requirements**

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

Process throughput:

- A. The Main Hearth side of Melting Furnaces #1 and #2 (EP/EU-04 and EP/EU-05) shall only combust natural gas.

Authority for Requirement: DNR Construction Permit 02-A-008-S1,  
DNR Construction Permit 02-A-009-S1

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

| Emission Point                      | 04                     | 05                     |
|-------------------------------------|------------------------|------------------------|
| Stack Height, (ft, from the ground) | 70                     | 70                     |
| Stack Opening, (inches, dia.)       | 78                     | 78                     |
| Exhaust Flow Rate (scfm)            | 16,444                 | 16,444                 |
| Exhaust Temperature (°F)            | 520                    | 520                    |
| Discharge Style                     | Vertical, Unobstructed | Vertical, Unobstructed |
| Authority for Requirement           | 02-A-008-S1            | 02-A-009-S1            |

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission points. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 08**Associated Equipment

| <b>Emission Unit ID</b> | <b>Description</b>   | <b>Maximum Rated Capacity</b> | <b>Control Equipment</b>     | <b>DNR Construction Permit</b> |
|-------------------------|----------------------|-------------------------------|------------------------------|--------------------------------|
| EU-08                   | Three Stand Hot Mill | 49 ton/hr                     | Mechanical Collector (CE-08) | 90-A-389-S2                    |

**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.*

| <b>Pollutant</b>                        | <b>lb/hr</b> | <b>ton/yr</b> | <b>Other Limits</b> | <b>Authority for Requirement</b> |
|-----------------------------------------|--------------|---------------|---------------------|----------------------------------|
| Opacity                                 | NA           | NA            | 40% <sup>1</sup>    | 90-A-389-S2, 567 IAC 23.3(2)"d"  |
| Particulate Matter (PM <sub>2.5</sub> ) | NA           | 21.37         | NA                  | 90-A-389-S2                      |
| Particulate Matter (PM <sub>10</sub> )  | NA           | 33.71         | NA                  | 90-A-389-S2                      |
| Particulate Matter (PM) State           | NA           | 38.74         | 0.1 gr/dscf         | 90-A-389-S2, 567 IAC 23.3(2)"a"  |
| Volatile Organic Compounds (VOC)        | NA           | 10.36         | NA                  | 90-A-389-S2                      |

<sup>1</sup>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).

### **Operating Requirements with 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. This rolling mill is limited to a maximum throughput of 429,200 tons per 12-month rolling period.
- B. The Mechanical Collector (CE-08) shall be operated and maintained according to the manufacturer recommendations and specifications.
- C. The owner or operator shall record the amount of material processed in the Three Stand Hot Mill (EU-08), in tons per day. The owner or operator shall calculate and record monthly and rolling 12-month totals.
- D. A log of all maintenance and inspection activities performed on the Mechanical Collector (CE-08). This log shall include, but is not necessarily limited to:
  - i. The date and time any inspection and/or maintenance was performed on the Mechanical Collector (CE-08);
  - ii. Any issues identified during the inspection and the date each issue was resolved;
  - iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and
  - iv. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 90-A-389-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 70

Stack Opening, (inches, dia.): 96

Exhaust Flow Rate (acfm): 57,760

Exhaust Temperature (°F): 126

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 90-A-389-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 ☐  
For Particulate Matter

Authority for Requirement: 567 IAC 22.108(3)

## **CAM Plan for CE-08 Mechanical Collector**

### Dust Collector Parameters

Associated Emission Unit: EU 08 Three Stand Hot Mill

Associated Emission Point: EP 08

Pollutants Controlled: Particulate Matter

### Applicable Requirements

Iowa DNR Construction Permit 90-A-389-S2

### **Monitoring Approach**

#### General Monitoring Criteria:

- A. 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.
- B. Monitoring is not required during periods of time greater than one day in which the source does not operate.
- C. 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.
- D. If light conditions prevent visible emission monitoring, the observer will note the light conditions and time of day on the form used to record monitoring. Under this circumstance, pressure readings will be made in place of visible observations of opacity.

#### Excursion from Compliance Indicators:

- A. 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.
- B. Nichols Aluminum, LLC 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.)
- C. Corrective actions will result in one of the following:
  - i. If corrective actions return the process and control equipment operations to normal, the excursion does not result in a monitoring deviation.
  - ii. If corrective actions do not correct the excursion or no corrective action is taken, then a monitoring deviation results.
- D. If corrective actions do not return the compliance indicator to its defined acceptable indicator range, Nichols Aluminum, LLC will perform the following follow-up actions, *as applicable*:
  - i. Continue corrective actions.

- ii. Promptly orally report the excursion to the Iowa DNR central office (whether or not excursion from compliance indicator range is believed to have caused excess emissions).
- iii. Promptly orally report the indicator opacity exceedance to field office of Iowa DNR; within seven days of the exceedance, file a written indicator opacity exceedance report with both field office and central office (Compliance Unit) of Iowa DNR.
- iv. Promptly orally report excess emissions to field office of Iowa DNR (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 Iowa DNR.
- v. Conduct source testing within 90 days of the excursion to demonstrate compliance.
  - a. If the test demonstrates compliance with emission limits, Nichols Aluminum, LLC will determine new indicator ranges for monitoring.
  - b. If the test demonstrates noncompliance with emission limits, Nichols Aluminum, LLC will, within 60 days, propose a schedule to implement corrective action to bring the source into compliance and conduct source testing to demonstrate compliance.
- vi. Report monitoring or other deviations (operating conditions, emission limits, or reporting requirements) in Iowa DNR semi-annual monitoring and annual compliance certification reports.

**Compliance Indicator Ranges:**

A. Differential Pressure

- i. Acceptable indicator range: 3" to 8" of water gauge (w.g).

**Monitoring Method:**

A. Daily

- i. Measure pressure drop across the chamber of the mechanical collector.

**Performance Criteria**

**Data Representativeness:**

- A. A differential pressure reading not within the acceptable indicator range could indicate performance by the dust collector and potentially an increase in particulate emissions.

**Record Keeping and Reporting (Verification of Operational Status):**

A. Nichols Aluminum, LLC will maintain records of the following:

- i. Daily logs of differential pressure readings.
- ii. All daily, monthly, quarterly, and semi-annually required inspections and maintenance.
- iii. All corrective actions resulting from compliance indicators and inspections and maintenance.
- iv. Excursion, indicator pressure drop exceedance, and excess emissions reports.

- B. Records will be kept for at least five (5) years and be available to the Iowa DNR upon request.

Quality Control:

- A. The mechanical collectors and their monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements.
- B. Nichols Aluminum, LLC will maintain an adequate inventory of spare parts.

Data Collection Procedures:

- A. Manual log entries are made based on gauge readings.
- B. Maintenance personnel record all maintenance/inspection performed on the dust collector and actions resulting from the inspection.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 10

### Associated Equipment

| Emission Unit ID | Description                       | Maximum Rated Capacity                                                   | Control Equipment                          | DNR Construction Permit |
|------------------|-----------------------------------|--------------------------------------------------------------------------|--------------------------------------------|-------------------------|
| EU-10            | Melting Furnace #3A – Main Hearth | 4 burners at 17.1 million Btu/hour, each<br>(Two burners on and two off) | Low-NOx Regenerative Burner System (CE-10) | 16-A-289                |

### 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                         | lb/hr | ton/yr | Other Limits         | Authority for Requirement       |
|-----------------------------------|-------|--------|----------------------|---------------------------------|
| Opacity                           | NA    | NA     | 40% <sup>1</sup>     | 567 IAC 23.3(2)"d"              |
| Particulate Matter (PM) State     | 0.25  | NA     | 0.1 gr/dscf          | 16-A-289,<br>567 IAC 23.3(2)"a" |
| Sulfur Dioxide (SO <sub>2</sub> ) | NA    | NA     | 500 ppm <sub>v</sub> | 16-A-289,<br>567 IAC 23.3(3)"e" |

<sup>1</sup>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).

#### National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

- A. Melting Furnace #3A (EU-10) is subject to 40 CFR Part 63, Subpart RRR – *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*. However, there are no NESHAP Subpart RRR requirements for the main hearth of Melting Furnace #3A (EU-10) described in this permit, because only clean scrap is charged to the main hearth.

Authority for Requirement: 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"  
DNR Construction Permit 16-A-289

### **Operating Requirements with 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 main hearth of Melting Furnace #3A (EU-10) shall only combust natural gas.

Authority for Requirement: DNR Construction Permit 16-A-289

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 70

Stack Opening, (inches, dia.): 78

Exhaust Flow Rate (scfm): 8,857

Exhaust Temperature (°F): 520

Discharge Style: Vertical, Obstructed

Authority for Requirement: DNR Construction Permit 16-A-289

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: 13

### Associated Equipment

| Emission Unit | Emission Unit Description                    | Raw Material | Rated Capacity   | Control Equipment                                                               |
|---------------|----------------------------------------------|--------------|------------------|---------------------------------------------------------------------------------|
| 13            | Two (2) Rotary Barrel Furnace/Assoc. Process | Metal        | 10 MMBtu/hr each | Lime-Injected Baghouse (CE-13); Wheelabrator Model 171, Size 1642D (12 Modules) |
| 23            | Two (2) Tardis Dross Presses                 | Metal        | 5 ton/hr each    |                                                                                 |
| 27            | Lime Silo                                    | Lime         | 69.6 tons        |                                                                                 |

### 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                              | lb/hr             | ton/yr            | Other Limits               | Authority for Requirement        |
|----------------------------------------|-------------------|-------------------|----------------------------|----------------------------------|
| Opacity                                | NA                | NA                | 40% <sup>3</sup>           | 98-A-468-P4, 567 IAC 23.3(2)"d", |
| Particulate Matter (PM <sub>10</sub> ) | 8.6               | NA                | NA                         | 98-A-468-P4,                     |
|                                        | 3.28 <sup>1</sup> | 14.4 <sup>1</sup> | 0.004 gr/dscf <sup>2</sup> |                                  |
| Particulate Matter (PM) State          | NA                | NA                | 0.1 gr/dscf                | 98-A-468-P4, 567 IAC 23.3(2)"a"  |
|                                        | 5.57 <sup>1</sup> | 24.4 <sup>1</sup> | 0.004 gr/dscf <sup>2</sup> |                                  |
| Volatile Organic Compounds             | NA                | 39.4              | 2.1 lb/ton of charge       | 98-A-468-P4                      |

<sup>1</sup> These pound per hour and ton per year emission limits apply only to the combined emissions of the two Tardis Dross Presses, EU 23, after the control device.

<sup>2</sup> The grain loading limit for PM and PM<sub>10</sub> applies to the outlet of the baghouse and includes all emission units that vent through this emission point. This emission limit was requested by the facility.

<sup>3</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

PSD (BACT) Emission Limits:

| <b>Pollutant</b>                       | <b>Limit<sup>(1)</sup></b> | <b>Reference</b> |
|----------------------------------------|----------------------------|------------------|
| Particulate Matter (PM) State          | 0.004 gr/dscf              | 98-A-468-P4      |
| Particulate Matter (PM <sub>10</sub> ) | 0.004 gr/dscf              | 98-A-468-P4      |
| Opacity                                | 0%                         | 98-A-468-P4      |

<sup>1</sup>Emission limits only apply to the emissions from the two rotary barrel furnaces and the ventilation system of the process building.

Authority for Requirement: DNR PSD Permit 98-A-468-P4

NESHAP Emission Limits

**Two (2) Rotary Barrel Furnaces (EU 13)**

| <b>Pollutant</b>                                 | <b>Emission Limit</b>                                                                                   | <b>Subpart RRR Reference</b> |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------|
| Particulate Matter (PM) Federal                  | 0.40 lb/ton of feed <sup>1</sup>                                                                        | 40 CFR 63.1505(i)(1)         |
| Hydrochloric Acid (HCl)                          | 0.40 lb/ton of feed <sup>(1)</sup> or 10% of the HCl upstream of the add-on control device <sup>1</sup> | 40 CFR 63.1505(i)(4)         |
| Dioxins/Furans in Toxicity Equivalents (D/F TEQ) | 15.0 µg TEQ/Mg (2.1*10 <sup>-4</sup> gr D/F TEQ/ton) of feed <sup>1</sup>                               | 40 CFR 63.1505(i)(3)         |

<sup>1</sup>Per 40 CFR §63.1505(i)(6), the owner or operator may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of the feed/charge.

## Secondary Aluminum Processing Unit

| Pollutant                               | Limit <sup>(1)</sup>                                                              | Subpart RRR Reference |
|-----------------------------------------|-----------------------------------------------------------------------------------|-----------------------|
| Particulate Matter (PM) <sup>(2)</sup>  | $L_{CPM} = \frac{\sum_{i=1}^n (L_{tiPM} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$   | 40 CFR 63.1505(k)(1)  |
| Hydrogen Chloride (HCl) <sup>(3)</sup>  | $L_{CHCl} = \frac{\sum_{i=1}^n (L_{tiHCl} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$ | 40 CFR 63.1505(k)(2)  |
| Dioxins and Furans (D/F) <sup>(4)</sup> | $L_{CD/F} = \frac{\sum_{i=1}^n (L_{tiD/F} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$ | 40 CFR 63.1505(k)(3)  |

<sup>1</sup>Standard is expressed as a 3-day, 24-hour rolling average. The owner or operator of a SAPU at a secondary aluminum production facility that is a major source may demonstrate compliance with the emission limit if §63.1505(k)(1) through (3) by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of §63.1505(i) and §63.1505(j).

<sup>2</sup> Where,

$L_{CPM}$  = The PM emission limit for the secondary aluminum processing unit.

$L_{tiPM}$  = The PM emission limit for individual emission unit i in §63.1505(i)(1) and (2) for a group 1 furnace or §63.1505(j)(2) for an in-line fluxer. NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

$T_{ti}$  = The feed/charge rate for individual emission unit i.

<sup>3</sup> Where,

$L_{CHCl}$  = The HCl emission limit for the secondary aluminum processing unit.

$L_{tiHCl}$  = The HCl emission limit for individual emission unit i in §63.1505(i)(4) for a group 1 furnace or §63.1505(j)(1) for an in-line fluxer. NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

$T_{ti}$  = The feed/charge rate for individual emission unit i.

<sup>4</sup> Where,

$L_{CD/F}$  = The D/F emission limit for the secondary aluminum processing unit.

$L_{tiD/F}$  = The D/F emission limit for individual emission unit i in §63.1505(i)(3) for a group 1 furnace.

$T_{ti}$  = The feed/charge rate for individual emission unit i.

Authority for Requirement: 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"  
Iowa DNR PSD Permit 98-A-468-P4

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

| Emission Unit ID | Subpart | Title                         | Type            | State Reference (567 IAC) | Federal Reference (40 CFR) |
|------------------|---------|-------------------------------|-----------------|---------------------------|----------------------------|
| EU 13            | A       | General Provisions            | NA              | 23.1(3)                   | §63.1 – §63.15             |
|                  | RRR     | Secondary Aluminum Production | Group 1 Furnace | 23.1(4)"br"               | §63.1500 – §63.1520        |

**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. Only natural gas shall be used as fuel in an enriched oxygen combustion atmosphere for the two Rotary Barrel Furnaces (EU 13).
  - B. Only dross and inspected aluminum scrap shall be melted in the two Rotary Barrel Furnaces (EU 13). The owner or operator shall implement work practice standards as specified in Work Instruction Document BL2.10 to minimize emissions from the Rotary Barrel Furnaces (EU 13). Additionally, the owner or operator shall implement the scrap acceptance and rejection standards specified in Work Instruction Documents S1.4 and BL2.3. The owner or operator shall:
    - i. Conduct inspections for every truckload before use. All inspections must be recorded and the record shall include, at a minimum, aluminum scrap source, and type to ensure aluminum scrap quality;
    - ii. Retain on-site a copy of Work Instruction Document BL2.10 and all records required by the plan to minimize emissions from the Rotary Barrel Furnaces (EU 13); and
    - iii. Retain on-site a copy of Work Instruction Documents S1.4 and BL2.3 and all records required by the plan.
  - C. The owner or operator shall provide and maintain easily visible labels posted at each of the Rotary Barrel Furnaces (EU 13) that identifies the applicable emission limits and means of compliance per 40 CFR 63.1506(b) including:
    - i. The type of affected source or emission unit; and
    - ii. The applicable operational standard(s) and control method(s). This includes but is not limited to, the type of charge to be used for a furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
- The owner or operator shall:
- a. Inspect the labels for the Rotary Barrel Furnaces (EU 13) at least once per calendar month to confirm that posted labels are intact and legible.

- D. The owner or operator shall operate each capture/collection system according to the procedures and requirements in the OM&M plan per 40 CFR §63.1506(c). The owner or operator shall:
- i. Install, operate, and maintain a capture/collection system for the Rotary Barrel Furnaces (EU 13) and inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR §63.1506(c); and
  - ii. Record the results of each inspection per 40 CFR §63.1510(d).
- E. The owner or operator shall install and operate a device to measure and records or otherwise determines the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test per 40 CFR 63.1506(d). The weight measurement system or other weight determination procedure shall be operated in accordance with the OM&M plan. The owner or operator may choose to measure and record aluminum production weight from an affect source or emission unit rather than fee/charge weight to an affect source or unit provided:
- i. The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and
  - ii. All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.
- The owner or operator of the Rotary Barrel Furnaces (EU 13) shall:
- a. Install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the Rotary Barrel Furnaces over the same operating cycle or time period used in the performance test per 40 CFR §63.1510(e). The owner or operator shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The device shall conform to the specifications of 40 CFR §63.1510(e)(1).
- F. The owner or operator of the facility shall comply with all applicable operating monitoring requirements contained in NESHAP Subpart RRR, 40 CFR §63.1510. The owner or operator shall:
- i. Prepare and implement a written operation, maintenance, and monitoring (OM&M) plan per the monitoring requirements of 40 CFR §63.1510. The OM&M plan shall include the required information for secondary aluminum processing units as described in 40 CFR §63.1510(s).
- G. The owner or operator must verify that the continuous lime injection system is always free-flowing. The owner or operator shall:
- i. Examine the lime silo once each 8-hour period and record the results of each inspection as specified in 40 CFR §63.1510(i). If lime is found not to be free-flowing during any of the 8-hour periods, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period.

- H. The owner or operator of group 1 furnaces (i.e. Rotary Barrel Furnaces) with emissions controlled by a lime-injected fabric filter must, for a bag leak detection system:
- i. Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan;
  - ii. Operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period per 40 CFR 63.1506(k)(ii) and 40 CFR 63.1506(m)(iii); and
  - iii. Maintain the 3-hour block average inlet temperature for the fabric filter at or below the average temperature established during the performance test plus 25°F.

The owner or operator shall:

- a. Install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR §63.1510(f)(1). The bag leak detection system shall conform to the requirements of 40 CFR §63.1510(f)(1)(i) through 40 CFR §63.1510(f)(1)(x); and
  - b. Install, calibrate, maintain and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases per 40 CFR §63.1510(h). The device shall conform to the specifications in 40 CFR §63.1510(h)(2)(i) through 40 CFR §63.1510(h)(2)(iii).
- I. The owner or operator shall not use gaseous or liquid reactive flux in any units venting through EP-13. The owner or operator shall:
- i. Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to the Rotary Barrel Furnaces (EU 13) per 40 CFR §63.1510(j). The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. The owner or operator shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months;
  - ii. Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of gaseous or liquid reactive flux, other than chlorine; and solid reactive flux per 40 CFR §63.1510(j); and
  - iii. Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR §63.1512(o).
- J. The owner or operator shall follow all applicable notification, reporting, and recordkeeping requirements of 40 CFR §63.1515, 40 CFR §63.1516, and 40 CFR §63.1517.
- K. The owner or operator shall maintain the Baghouse (CE-13) according to the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the Baghouse (CE-13). This log shall include, but is not necessarily limited to:
- i. The date and time any inspection and/or maintenance was performed on the Baghouse (CE-13);
  - ii. Any issues identified during the inspection and the date each issue was resolved;
  - iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and
  - iv. Identification of the staff member performing the maintenance or inspection.

- L. The owner or operator shall conduct opacity testing as specified in Condition 2. The owner or operator shall:
  - i. Record all events of Baghouse (CE-13) malfunction; and
  - ii. Keep all opacity observation data for a minimum of five (5) years from the date of the recording. This data shall be available at the plant during normal business hours.
- M. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 16-046) the owner or operator shall document and maintain a record of the following:
  - i. A description of the project (Project Number 16-046);
  - ii. Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 16-046); and
  - iii. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.

Authority for Requirement: DNR PSD Permit 98-A-468-P4

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 75

Stack Opening, (inches, dia.): 94

Exhaust Flow Rate (acfm): 237,500

Exhaust Temperature (°F): 150

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR PSD Permit 98-A-468-P4

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.*

| <b>Pollutant</b>         | <b>Compliance Methodology</b>    | <b>Frequency</b>   | <b>Test Run Time</b> | <b>Test Method</b>                                                       |
|--------------------------|----------------------------------|--------------------|----------------------|--------------------------------------------------------------------------|
| Opacity                  | Visible Observation <sup>3</sup> | Once per day       | 1 hour               | 40 CFR 60, Appendix A, Method 9                                          |
| PM – Federal             | Stack Testing <sup>2</sup>       | Once every 5 years | 3 hour               | 40 CFR 60, Appendix A, Method 5                                          |
| VOC <sup>1</sup>         | Stack Testing <sup>4</sup>       | Once every 5 years | 1 hour               | 40 CFR 63, Appendix A, Method 320 or<br>40 CFR 60, Appendix A, Method 18 |
| HCl (Federal)            | Stack Testing                    | Once every 5 years | 1 hour               | 40 CFR 60, Appendix A, Method 26A                                        |
| Dioxins/Furans (Federal) | Stack Testing                    | Once every 5 years | 1 hour               | 40 CFR 60, Appendix A, Method 23                                         |

<sup>1</sup> VOC tests shall cover no less than three (3) batch periods for both rotary barrel furnaces. The tests shall be used to determine compliance with the emission factor expressed in pounds of VOC per ton of scrap.

<sup>2</sup> Testing shall be completed every 5 years according to the applicable requirements of 40 CFR §63.1511 and 40 CFR §63.1512.

<sup>3</sup> The owner or operator elected to demonstrate compliance with the initial permit limits by performing periodic stack testing in lieu of installing a COMs for Opacity. The owner or operator is required to complete an Opacity test, using the procedures specified in 40 CFR 60, Appendix A, Method 9 at least once per day. If no visible emissions are observed from the stack, a full reference method test is not required. The owner or operator shall record that no visible emissions were observed. If visible emissions are observed, a full reference method test is required to document that the opacity does not exceed the limits specified in Condition 10 of this permit.

<sup>4</sup> Testing may occur during the required MACT compliance testing for PM, HCl, and Dioxins and Furans.

Authority for Requirement: DNR PSD Permit 98-A-468-P4

*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, or 60 days for 40 CFR 63 Subpart RRR required tests, of the completion of the testing. 567 IAC 25.1(7)*

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 14F (Vented Internally)**

Associated Equipment

Associated Emission Unit ID Number: 14

Emissions Control Equipment ID Number: none

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Emission Unit vented through this Emission Point: 14

Emission Unit Description: Burner Ball Shaker

Raw Material/Fuel: Burner Balls

Rated Capacity: 1.00 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: 15a and 15b

### Associated Equipment

| Emission Point | Emission Unit | Emission Unit Description | Rated Capacity     | Control Equipment | DNR Construction Permit |
|----------------|---------------|---------------------------|--------------------|-------------------|-------------------------|
| 15a            | 15            | Refractory Curing Oven    | 0.002 MMCF/hr (NG) | NA                | 96-A-287                |
| 15b            |               |                           |                    |                   |                         |

### Applicable Requirements

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

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

| Pollutant                              | lb/hr | ton/yr | Other Limits         | Authority for Requirement    |
|----------------------------------------|-------|--------|----------------------|------------------------------|
| Opacity                                | NA    | NA     | 40%                  | 567 IAC 23.3(2)"d"           |
| Particulate Matter (PM <sub>10</sub> ) | 0.308 | NA     | NA                   | 96-A-287                     |
| Particulate Matter (PM) State          | 0.308 | 1.35   | 0.1 gr/dscf          | 96-A-287, 567 IAC 23.3(2)"a" |
| Nitrogen Oxides (NO <sub>x</sub> )     | 0.20  | 0.88   | NA                   | 96-A-287                     |
| Sulfur Dioxide (SO <sub>2</sub> )      | NA    | NA     | 500 ppm <sub>v</sub> | 96-A-287, 567 IAC 23.3(3)"e" |

**Emission Point Characteristics**

*The emission points shall conform to the specifications listed below.*

| <b>Emission Point</b>                      | <b>15a</b>             | <b>15b</b>             |
|--------------------------------------------|------------------------|------------------------|
| <b>Stack Height, (ft, from the ground)</b> | 19.33                  | 19.33                  |
| <b>Stack Opening, (inches, dia.)</b>       | 12                     | 12                     |
| <b>Exhaust Flow Rate (scfm)</b>            | 354                    | 354                    |
| <b>Exhaust Temperature (°F)</b>            | 1000                   | 1000                   |
| <b>Discharge Style</b>                     | Vertical, Unobstructed | Vertical, Unobstructed |
| <b>Authority for Requirement</b>           | 96-A-287               | 96-A-287               |

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: 16F (Vented Internally)**Associated Equipment

| Emission Unit ID | Emission Unit Description          | Raw Material | Rated Capacity   |
|------------------|------------------------------------|--------------|------------------|
| 16               | Direct Fired Heaters > 1.8MMBtu/hr | Natural Gas  | 0.048515 MMCF/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                         | lb/hr | ton/yr | Other Limits         | Authority for Requirement |
|-----------------------------------|-------|--------|----------------------|---------------------------|
| Opacity                           | NA    | NA     | 40%                  | 567 IAC 23.3(2)"d"        |
| Particulate Matter (PM)           | NA    | NA     | 0.1 gr/dscf          | 567 IAC 23.3(2)"a"        |
| Sulfur Dioxide (SO <sub>2</sub> ) | NA    | NA     | 500 ppm <sub>v</sub> | 567 IAC 23.3(3)"e"        |

**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: 20, 21, and 26

### Associated Equipment

| Emission Unit ID | Emission Unit Description       | Raw Material | Rated Capacity |
|------------------|---------------------------------|--------------|----------------|
| 20               | Caster Water Pump Backup Engine | Diesel       | 270 hp         |
| 21               | Fire System Engine Combustion   | Diesel       | 139 hp         |
| 26               | Emergency Lighting Generator    | Diesel       | 48 hp          |

### 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                         | lb/hr | ton/yr | Other Limits | Authority for Requirement |
|-----------------------------------|-------|--------|--------------|---------------------------|
| Opacity                           | NA    | NA     | 40%          | 567 IAC 23.3(2)"d"        |
| Particulate Matter (PM)           | NA    | NA     | 0.1 gr/dscf  | 567 IAC 23.3(2)"a"        |
| Sulfur Dioxide (SO <sub>2</sub> ) | NA    | NA     | 2.5 lb/MMBtu | 567 IAC 23.3(3)"b"        |

#### National Emission Standards for Hazardous Air Pollutants NESHAP:

The emergency engines are 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)(ii) these compression ignition emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

### **Operating Requirements with Associated 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. The operating requirements and associated recordkeeping for this permit shall be:*

#### **Process throughput:**

- A. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

#### **Reporting & Record keeping:**

- A. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

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

- A. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
- B. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
- C. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- D. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- E. Install a non-resettable hour meter if one is not already installed.
- F. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

### **Operating Limits 40 CFR 63.6640(f)**

- A. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
- B. There is no time limit on the use of emergency stationary RICE in emergency situations.
- C. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
- D. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

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

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

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

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 23 and 03bF (03bF Vented Internally)

### Associated Equipment

| Emission Point | Emission Unit     | Emission Unit Description                                | Rated Capacity                                                                            | Control Equipment  | DNR Construction Permit |
|----------------|-------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------|-------------------------|
| 23             | 04                | Melting Furnace #1<br>(Sidewell, Dirty Charge Side)      | 408 tons aluminum/day                                                                     | CE-23:<br>Baghouse | 02-A-491-S6             |
|                | 05                | Melting Furnace #2<br>(Sidewell, Dirty Charge Side)      | 408 tons aluminum/day                                                                     |                    |                         |
|                | 06                | Holding Furnace #1                                       | 0.024 MMCF/hr (NG),<br>87.5 tons/hr<br>(metal transfer),<br>15 tons/hr<br>(direct charge) |                    |                         |
|                | 07                | Holding Furnace #2                                       | 0.024 MMCF/hr (NG),<br>87.5 tons/hr<br>(metal transfer),<br>15 tons/hr<br>(direct charge) |                    |                         |
|                | 14                | Burner Ball Shaker                                       | 1.0 tons/hr                                                                               |                    |                         |
|                | 24                | Caster Belt Brush                                        | 49.0 tons/hr                                                                              |                    |                         |
|                | 25 <sup>(1)</sup> | STAS Degasser                                            | 49.0 tons/hr                                                                              |                    |                         |
| 03bF           | 03b               | Delacquering System In-Feed Conveyor (Vented Internally) | 27.5 tons/hr                                                                              | N/A                | 02-A-491-S6             |

<sup>1</sup>EU-25 (STAS Degasser; In-Line Fluxer) is subject to RRR, but the process uses no chlorine or reactive flux. A non-reactive gas is used to remove natural gas bubbles from the metal.

### 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                              | Emission Limit            | Authority for Requirement                               |
|----------------------------------------|---------------------------|---------------------------------------------------------|
| Opacity                                | 40% <sup>(1)</sup>        | DNR Construction Permit 02-A-491-S6, 567 IAC 23.3(2)"d" |
| Particulate Matter (PM <sub>10</sub> ) | 11.3 lb/hr                | DNR Construction Permit 02-A-491-S6                     |
| Particulate Matter (PM) State          | 11.3 lb/hr<br>0.1 gr/dscf | DNR Construction Permit 02-A-491-S6, 567 IAC 23.3(2)"a" |
| Sulfur Dioxide (SO <sub>2</sub> )      | 500 ppmv                  | DNR Construction Permit 02-A-491-S6, 567 IAC 23.3(3)"e" |
| Nitrogen Oxides (NO <sub>x</sub> )     | 5.8 lb/hr                 | DNR Construction Permit 02-A-491-S6                     |
| Carbon Monoxide (CO)                   | 4.8 lb/hr                 | DNR Construction Permit 02-A-491-S6                     |

<sup>1</sup>An exceedance of the indicator opacity of "no visible emissions (No VE)" 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).

## Melter 1 (EU-04), Melter 2 (EU-05) and Holding Furnace 2 (EU-07)

| Pollutant                                        | Emission Limit                                                                                            | Subpart RRR Reference |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------|
| Particulate Matter (PM) Federal                  | 0.40 lb/ton of feed <sup>(1)</sup>                                                                        | 40 CFR 63.1505(i)(1)  |
| Hydrochloric Acid (HCl)                          | 0.40 lb/ton of feed <sup>(1)</sup> or 10% of the HCl upstream of the add-on control device <sup>(1)</sup> | 40 CFR 63.1505(i)(4)  |
| Dioxins/Furans in Toxicity Equivalents (D/F TEQ) | 15.0 µg TEQ/Mg (2.1*10 <sup>-4</sup> gr D/F TEQ/ton) of feed <sup>(1)</sup>                               | 40 CFR 63.1505(i)(3)  |

<sup>1</sup>Per §63.1505(i)(6), the owner or operator may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of the feed/charge.

## Secondary Aluminum Processing Unit

| Pollutant                             | Limit <sup>1</sup>                                                                | Subpart RRR Reference |
|---------------------------------------|-----------------------------------------------------------------------------------|-----------------------|
| Particulate Matter (PM) <sup>2</sup>  | $L_{CPM} = \frac{\sum_{i=1}^n (L_{tiPM} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$   | 40 CFR 63.1505(k)(1)  |
| Hydrogen Chloride (HCl) <sup>3</sup>  | $L_{CHCl} = \frac{\sum_{i=1}^n (L_{tiHCl} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$ | 40 CFR 63.1505(k)(2)  |
| Dioxins and Furans (D/F) <sup>4</sup> | $L_{CD/F} = \frac{\sum_{i=1}^n (L_{tiD/F} \times T_{ti})}{\sum_{i=1}^n (T_{ti})}$ | 40 CFR 63.1505(k)(3)  |

<sup>1</sup> Standard is expressed as a 3-day, 24-hour rolling average. The owner or operator of a SAPU at a secondary aluminum production facility that is a major source may demonstrate compliance with the emission limit if §63.1505(k)(1) through (3) by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of §63.1505(i) and §63.1505(j).

<sup>2</sup> Where,

$L_{CPM}$  = The PM emission limit for the secondary aluminum processing unit.

$L_{tiPM}$  = The PM emission limit for individual emission unit i in §63.1505(i)(1) and (2) for a group 1 furnace or §63.1505(j)(2) for an in-line fluxer. **NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.**

$T_{ti}$  = The feed/charge rate for individual emission unit i.

<sup>3</sup> Where,

$L_{CHCl}$  = The HCl emission limit for the secondary aluminum processing unit.

$L_{tiHCl}$  = The HCl emission limit for individual emission unit i in §63.1505(i)(4) for a group 1 furnace or §63.1505(j)(1) for an in-line fluxer. **NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.**

$T_{ti}$  = The feed/charge rate for individual emission unit i.

<sup>4</sup> Where,

$L_{CD/F}$  = The D/F emission limit for the secondary aluminum processing unit.

$L_{tiD/F}$  = The D/F emission limit for individual emission unit i in §63.1505(i)(3) for a group 1 furnace.

$T_{ti}$  = The feed/charge rate for individual emission unit i.

Authority for Requirement: Iowa DNR Construction Permit 02-A-491-S6  
40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"

**National Emission Standards for Hazardous Air Pollutants NESHAP:**

The above listed emission sources are subject to 40 CFR 63 Subpart A – General Conditions and 40 CFR 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. The Permittee shall comply with all applicable requirements of Subpart RRR. Under Subpart RRR, the emission sources are regulated as the following:

| Emission Point | Emission Unit | Emission Unit Description | Regulated As                                   |
|----------------|---------------|---------------------------|------------------------------------------------|
| 23             | 04            | Melting Furnace #1        | Charge Wells – Group 1 Furnace                 |
|                | 05            | Melting Furnace #2        | Charge Wells – Group 1 Furnace                 |
|                | 06            | Holding Furnace #1        | Group 2 Furnace                                |
|                | 07            | Holding Furnace #2        | Group 1 Furnace                                |
|                | 25            | STAS Degasser             | In-Line Fluxer that does not use reactive flux |

Authority for Requirement: 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"  
DNR Construction Permit 02-A-491-S6

**Operating Requirements with Associated 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. The operating requirements and associated recordkeeping for this permit shall be:*

- A. Holding Furnace 1 (EU-06) and Holding Furnace 2 (EU-07) shall be fired by natural gas only.
- B. The baghouse (CE-23) be maintained according to manufacturer's specifications and maintenance schedule.
- C. The owner or operator shall provide and maintain easily visible labels posted at Melting Furnace #1 (Sidewell, Dirty Charge Side) (EU-04), Melting Furnace #2 (Sidewell, Dirty Charge Side) (EU-05), Holding Furnace #1 (EU-06), Holding Furnace #2 (EU-07), and STAS Degasser (EU-25) that identifies the applicable emission limits and means of compliance per 40 CFR §63.1506(b) including:
  - i. The type of affected source or emission unit
  - ii. The applicable operational standard(s) and control method(s). This includes but is not limited to, the type of charge to be used for a furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
- D. The owner or operator shall operate each capture/collection system according to the procedures and requirements in the OM&M plan per 40 CFR §63.1506(c).

- E. The owner or operator shall follow an intermittent lime injection schedule per 40 CFR 63.1510(i)(3). The owner or operator shall not use chlorine flux in the STAS Degasser (EU-25). Lime injection is not required at this time.
- F. The owner or operator shall install and operate a device to measure and record or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test per 40 CFR 63.1506(d). The weight measurement system or other weight determination procedure shall be aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or unit provided:
  - i. The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and
  - ii. All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.
- G. The owner or operator of an in-line fluxer (i.e. STAS Degasser) and group 1 furnaces (i.e. Melting Furnace #1 (Sidewell, Dirty Charge Side), Melting Furnace #2 (Sidewell, Dirty Charge Side), and Holding Furnace #2) with emissions controlled by a lime-injected fabric filter must, for a bag leak detection system:
  - i. Initiate corrective action within 1-hour of a bag leak detection system alarm and complete corrective action procedures in accordance with the OM&M plan
  - ii. Operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period per 40 CFR §63.1506(k)(ii) and 40 CFR §63.1506(m)(iii).
  - iii. Maintain the 3-hour block average inlet temperature for the fabric filter at or below the average temperature established during the performance test plus 25°F.
- H. The owner or operator of the in-line fluxer (i.e. STAS Degasser) and group 1 furnaces (i.e. Melting Furnace #1 (Sidewell, Dirty Charge Side), Melting Furnace #2 (Sidewell, Dirty Charge Side), and Holding Furnace #2) shall only use a non-reactive flux.
- I. The owner or operator of a group 2 furnace (Holding Furnace #1) must:
  - i. Operate each furnace using only clean charge as the feedstock; and
  - ii. Operate each furnace using no reactive flux.
- J. The owner or operator shall record the amount of aluminum processed in each melter, in tons per day. The owner or operator shall calculate and record the monthly total and the 12-month rolling total.
- K. The owner or operator of the facility shall record the amount of aluminum processed in the STAS degasser, in tons per day. The owner or operator shall calculate and record the monthly total and the 12-month rolling total.
- L. The owner or operator shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan per the monitoring requirements of 40 CFR §63.1510. The OM&M plan shall include the required information for secondary aluminum processing units as described in 40 CFR §63.1510(s).
- M. The owner or operator must inspect the labels for Melting Furnace #1 (Sidewell, Dirty Charge Side) (EU-04), Melting Furnace #2 (Sidewell, Dirty Charge Side) (EU-05), Holding Furnace #1 (EU-06), Holding Furnace #2 (EU-07), and STAS Degasser (EU-25) at least once per calendar month to confirm that posted labels are intact and legible.

- N. The owner or operator shall install, operate, and maintain a capture/collection system for Melting Furnace #1 (Sidewell, Dirty Charge Side) (EU-04), Melting Furnace #2 (Sidewell, Dirty Charge Side) (EU-05), Holding Furnace #1 (EU-06), Holding Furnace #2 (EU-07), and STAS Degasser (EU-25) and inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR §63.1506(c) and record the results of each inspection per 40 CFR §63.1510(d).
- O. The owner or operator of Melting Furnace #1 (Sidewell, Dirty Charge Side) (EU-04), Melting Furnace #2 (Sidewell, Dirty Charge Side) (EU-05), and Holding Furnace #2 (EU-07) must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, Melting Furnace #1 (Sidewell, Dirty Charge Side) (EU-04), Melting Furnace #2 (Sidewell, Dirty Charge Side) (EU-05), and Holding Furnace #2 (EU-07) over the same operating cycle or time period used in the performance test per 40 CFR §63.1510(e). The owner or operator shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The device shall conform to the specifications of 40 CFR §63.1510(e)(1).
- P. The owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system as required in 40 CFR §63.1510(f)(1). The bag leak detection system shall conform to the requirements of 40 CFR §63.1510(f)(1)(i) through 40 CFR §63.1510(f)(1)(x).
- Q. The owner or operator shall install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases per 40 CFR §63.1510(h). The device shall conform to the specifications in 40 CFR §63.1510(h)(2)(i) through 40 CFR §63.1510(h)(2)(iii).
- R. Per 40 CFR §63.1510(m) *In-line fluxers using no reactive flux*. The owner or operator of an in-line fluxer that uses no reactive flux materials must submit a certification of compliance with the operational standard for no reactive flux materials in 40 CFR §63.1506(1) for each 6-month reporting period. Each certification must contain the information in 40 CFR §63.1516(b)(2)(vi).
- S. The owner or operator of a group 2 furnace (Holding Furnace #1) must:
- i. Record a description of the materials charged to each furnace, including any non-reactive, non-HAP-containing/non-HAP-generating fluxing materials or agents; and
  - ii. Submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR §63.1506(o) for each 6-month reporting period. Each certification must contain the information in 40 CFR §63.1516(b)(2)(v).
- T. The owner or operator shall follow all applicable notification requirements of 40 CFR §63.1515.
- U. The owner or operator shall follow all applicable reporting requirements of 40 CFR §63.1516.
- V. The owner or operator shall follow all applicable recordkeeping requirements of 40 CFR §63.1517.
- W. The owner or operator shall maintain a record of maintenance performed on the baghouse (CE-23).

Authority for Requirement: DNR Construction Permit 02-A-491-S6

**Emission Point Characteristics**

*The emission point, EP-23, shall conform to the specifications listed below. EP-03bF is vented internally, and therefore, does not have an external stack.*

Stack Height, (ft, from the ground): 80

Stack Opening, (inches, dia.): 115

Exhaust Flow Rate, (scfm): 160,000

Exhaust Temperature, (°F): 230

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-491-S6

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) Federal

Stack Test to be Completed by – Every 5 years <sup>1</sup>

Test Method – 40 CFR 60, Appendix A, Method 5

Authority for Requirement - 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"

Pollutant – Hydrochloric Acid (HCl)

Stack Test to be Completed by – Every 5 years <sup>1</sup>

Test Method – 40 CFR 60, Appendix A, Method 26/26A and 40 CFR 63.1511(c)

Authority for Requirement - 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"

Pollutant – Dioxins & Furans (D/F)

Stack Test to be Completed by – Every 5 years <sup>1</sup>

Test Method – 40 CFR 60, Appendix A, Method 23

Authority for Requirement - 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"

<sup>1</sup> Subsequent testing shall be completed every 5 years following the initial test according to the applicable requirements of 40 CFR 63.1511 and 40 CFR 63.1512. Last stack test performed on August 21, 2019.

*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, or 60 days for 40 CFR 63 Subpart RRR required tests, of the completion of the testing. 567 IAC 25.1(7)*

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: Fugitives

### Associated Equipment

| Emission Unit ID | Emission Unit Description             | Raw Material | Rated Capacity |
|------------------|---------------------------------------|--------------|----------------|
| FUG MELT         | Fugitives from Melters                | Metal        | 51.29 ton/hr   |
| LGT              | Fugitive Losses from Volatile Liquids | Metal        | 0.001 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                         | lb/hr | ton/yr | Other Limits         | Authority for Requirement |
|-----------------------------------|-------|--------|----------------------|---------------------------|
| Opacity                           | NA    | NA     | 40%                  | 567 IAC 23.3(2)"d"        |
| Particulate Matter (PM)           | NA    | NA     | 0.1 gr/dscf          | 567 IAC 23.3(2)"a"        |
| Sulfur Dioxide (SO <sub>2</sub> ) | NA    | NA     | 500 ppm <sub>v</sub> | 567 IAC 23.3(3)"e"        |

#### 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 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-9545

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

**G31. Prevention of Air Pollution Emergency Episodes**

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. *567 IAC 26.1(1)*

### **G32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

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 9<sup>th</sup> 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**

1101 Commercial Court, Suite 10  
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 9<sup>th</sup> 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  
1020 6<sup>th</sup> Street SE  
Cedar Rapids, IA 52401  
(319) 892-6000

## V. Appendix A: NESHAP

- A. 40 CFR 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

<http://www.ecfr.gov/cgi-bin/text-idx?SID=a39cc64c278558b1a2480e73e2fad2a6&node=sp40.13.63.rrr&rgn=div6>

- B. 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

<http://www.ecfr.gov/cgi-bin/text-idx?SID=c22f8dcba461a996845e1ecff8d5bf91&mc=true&node=sp40.14.63.zzzz&rgn=div6>