

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

March 9, 2020

PERMIT TO INSTALL
34-19A

ISSUED TO
Peerless Metal Powders and Abrasives

LOCATED AT
18900 Rialto Street
Melvindale, Michigan 48122

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
B4847

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

| | |
|--|------------|
| DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: February 13, 2020 | |
| DATE PERMIT TO INSTALL APPROVED: March 9, 2020 | SIGNATURE: |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

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COMMON ACRONYMS

| | |
|----------------------------|---|
| AQD | Air Quality Division |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| COMS | Continuous Opacity Monitoring System |
| Department/department/EGLE | Michigan Department of Environment, Great Lakes, and Energy |
| EU | Emission Unit |
| FG | Flexible Group |
| GACS | Gallons of Applied Coating Solids |
| GC | General Condition |
| GHGs | Greenhouse Gases |
| HVLP | High Volume Low Pressure* |
| ID | Identification |
| IRSL | Initial Risk Screening Level |
| ITSL | Initial Threshold Screening Level |
| LAER | Lowest Achievable Emission Rate |
| MACT | Maximum Achievable Control Technology |
| MAERS | Michigan Air Emissions Reporting System |
| MAP | Malfunction Abatement Plan |
| MSDS | Material Safety Data Sheet |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emission Standard for Hazardous Air Pollutants |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| PS | Performance Specification |
| PSD | Prevention of Significant Deterioration |
| PTE | Permanent Total Enclosure |
| PTI | Permit to Install |
| RACT | Reasonable Available Control Technology |
| ROP | Renewable Operating Permit |
| SC | Special Condition |
| SCR | Selective Catalytic Reduction |
| SNCR | Selective Non-Catalytic Reduction |
| SRN | State Registration Number |
| TBD | To Be Determined |
| TEQ | Toxicity Equivalence Quotient |
| USEPA/EPA | United States Environmental Protection Agency |
| VE | Visible Emissions |

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

POLLUTANT / MEASUREMENT ABBREVIATIONS

| | |
|------------------|--|
| acfm | Actual cubic feet per minute |
| BTU | British Thermal Unit |
| °C | Degrees Celsius |
| CO | Carbon Monoxide |
| CO _{2e} | Carbon Dioxide Equivalent |
| dscf | Dry standard cubic foot |
| dscm | Dry standard cubic meter |
| °F | Degrees Fahrenheit |
| gr | Grains |
| HAP | Hazardous Air Pollutant |
| Hg | Mercury |
| hr | Hour |
| HP | Horsepower |
| H ₂ S | Hydrogen Sulfide |
| kW | Kilowatt |
| lb | Pound |
| m | Meter |
| mg | Milligram |
| mm | Millimeter |
| MM | Million |
| MW | Megawatts |
| NMOC | Non-Methane Organic Compounds |
| NO _x | Oxides of Nitrogen |
| ng | Nanogram |
| PM | Particulate Matter |
| PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| PM2.5 | Particulate Matter equal to or less than 2.5 microns in diameter |
| pph | Pounds per hour |
| ppm | Parts per million |
| ppmv | Parts per million by volume |
| ppmw | Parts per million by weight |
| psia | Pounds per square inch absolute |
| psig | Pounds per square inch gauge |
| scf | Standard cubic feet |
| sec | Seconds |
| SO ₂ | Sulfur Dioxide |
| TAC | Toxic Air Contaminant |
| Temp | Temperature |
| THC | Total Hydrocarbons |
| tpy | Tons per year |
| µg | Microgram |
| µm | Micrometer or Micron |
| VOC | Volatile Organic Compounds |
| yr | Year |

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.
11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|--|--|-------------------------------|
| EU-RINGCRUSHER | A 20,000 lb/hr iron and steel crusher controlled with a fabric filter (baghouse) control | TBD | FG-DRYERCRUSHER FGFACILITY |
| EU-CHIPDRYER | A metal chip dryer with drying capacity of 10,000 lb/hr controlled by a smoke hood, 2.4 MMBtu/hr afterburner and the chip dryer baghouse | TBD | FG-DRYERCRUSHER FGFACILITY |
| EU-DRUMHEATER | Natural gas fired heaters used for indirect heating of the chip dryer retort | TBD | FGFACILITY |
| EU-MILL1 | 5,000 lb/hr iron and steel mill controlled by mill room baghouse | TBD | FG-MILLS FGFACILITY |
| EU-MILL2 | 5,000 lb/hr iron and steel mill controlled by mill room baghouse | TBD | FG-MILLS FGFACILITY |
| EU-MAGSEPARATOR | 2,000 lb/hr magnetic separator used to remove non-ferrous contaminants controlled by the Iron Line baghouse. | TBD | FG-IRONLINE FGFACILITY |
| EU-REPUBLICLINE | 10,000 lb/hr blending and packaging process controlled by the Iron Line baghouse | TBD | FG-IRONLINE FGFACILITY |
| EU-IRONSCREENER | 5,000 lb/hr screening operation controlled by the Iron Line baghouse | TBD | FG-IRONLINE FGFACILITY |
| EU-BLUELINE | 2,000 lb/hr fines screening operation controlled by the Iron Line baghouse | TBD | FG-IRONLINE FGFACILITY |
| EU-CRUSHINGLINE | Crushing and separating operations, controlled by the plant baghouse system | TBD | FG-PLANTBH FGFACILITY |
| EU-HRDNG/HTTREAT | Hardening and tempering operations | TBD | FGFACILITY |
| EU-FINISHINGLINE | Screening for sizing and packaging, controlled by the plant baghouse system | TBD | FG-PLANTBH FGFACILITY |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|--|--|--------------------------|
| EU-INDUCTIONMELT1 | 100 tons per day scrap iron and steel melt furnace. Melt fumes controlled by furnace baghouse system. | TBD | FG-MELT FGFACILITY |
| EU-INDUCTIONMELT2 | 100 tons per day scrap iron and steel melt furnace. Melt fumes controlled by furnace baghouse system. | TBD | FG-MELT FGFACILITY |
| EU-ASPDYSEG1 | Aspiration of molten metal from EU-INDUCTIONMELT1 followed by drying and segregating. Aspirating, drying, and segregating emissions are controlled by the plant baghouse system. | TBD | FG-PLANTBH FGFACILITY |
| EU-ASPDYSEG2 | Aspiration of molten metal from EU-INDUCTIONMELT2 followed by drying and segregating. Aspirating, drying, and segregating emissions are controlled by the plant baghouse system. | TBD | FG-PLANTBH FGFACILITY |

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

**EU-DRUMHEATER
EMISSION UNIT CONDITIONS**

DESCRIPTION

Natural gas fired heaters used for indirect heating of the chip dryer retort

Flexible Group ID:

FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|----------------------|--------------|---|------------------|------------------------------------|---|
| 1. NO _x | 0.40 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 2. CO | 0.40 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3), 40 CFR 52.21 (c) |
| 3. SO ₂ | 0.003 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 4. PM | 0.04 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3) |
| 5. PM ₁₀ | 0.04 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 6. PM _{2.5} | 0.04 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 7. VOCs | 0.03 lb/hr | Hourly | EU-DRUMHEATER | NA | R 336.1205(3) |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall combust only natural gas in EU-DRUMHEATER. **(R336.1205)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-HEATERS | 24 | 60 | R 336.1225, 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**EU-HRDNG/HTTREAT
EMISSION UNIT CONDITIONS**

DESCRIPTION

Combustion gases from hardening and tempering operations.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|----------------------|--------------|---|------------------|------------------------------------|---|
| 1. NO _x | 0.64 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 2. CO | 1.07 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3), 40 CFR 52.21 (d) |
| 3. SO ₂ | 0.008 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 4. PM | 0.10 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3) |
| 5. PM ₁₀ | 0.10 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 6. PM _{2.5} | 0.10 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 7. VOCs | 0.07 lb/hr | Hourly | EU-HRDNG/HTTREAT | NA | R 336.1205(3) |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only combust natural gas in EU-HRDNG/HTTREAT. **(R 336.1205(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

| Flexible Group ID | Flexible Group Description | Associated Emission Unit IDs |
|--------------------------|---|--|
| FG-MELT | Two 100 ton per day scrap iron and steel induction melt furnaces controlled by a fabric filter (baghouse) collector. | EU-INDUCTIONMELT1 EU-INDUCTIONMELT2 |
| FG-DRYERCRUSHER | A 20,000 lb/hr iron and steel crusher controlled by a baghouse and a 10,000 lb/hr chip dryer controlled by both a natural gas fired 2.4 MMBtu/hr afterburner, and a baghouse. | EU-RINGCRUSHER EU-CHIPDRYER |
| FG-MILLS | Two 5,000 lb/hr iron and steel mills controlled by a fabric filter (baghouse) collector. | EU-MILL1 EU-MILL2 |
| FG-PLANTBH | Miscellaneous iron and steel operations including: Magnetic separation, blending, packaging, crushing, screening, and aspiration. | EU-CRUSHINGLINE, EU-FINISHINGLINE, EU-ASPDYSEG1, and EU-ASPDYSEG2 |
| FG-IRONLINE | Miscellaneous iron and steel operations including: Magnetic separation, blending, packaging, crushing, and screening. | EU-MAGSEPARATOR EU-REPUBLICLINE EU-IRONSCREENER EU-BLUELINE |

**FG-MELT
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two 100 ton per day scrap iron and steel induction melt furnaces.

Flexible Group: FGFACILITY

Emission Unit: EU-INDUCTIONMELT1, EU-INDUCTIONMELT2.

POLLUTION CONTROL EQUIPMENT

Two fabric filter (baghouse) collectors.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-------------------------|--------------------------------------|---|------------------|--|---|
| 1. PM | 0.01 lbs/1,000 lbs exhaust gas | Hourly | FG-MELT | SC V.1 | R 336.1331 |
| 2. PM | 0.53 lb/hr. | Hourly | FG-MELT | SC V.1 | R 336.1205(3) |
| 3. PM10 | 0.41 lb/hr. | Hourly | FG-MELT | SC V.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 4. PM2.5 | 0.41 lb/hr. | Hourly | FG-MELT | SC V.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 5. Visible Emissions | 5 % Opacity | 6-minute average | FG-MELT | SC VI.1 | R 336.1301 |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days of trial operation, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for the baghouse for FG-MELT. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205(3), R 336.1910, R 336.1911, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-MELT unless the baghouses are installed and operating in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved PM/MAP as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d)).**
2. The permittee shall not operate FG-MELT unless a gauge, which measures the pressure drop across each baghouse and sounds an alarm when the pressure drop falls below 0.25 inches water or exceeds seven inches water gauge, are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after written notification from the Air Quality Division, the permittee shall verify PM, PM10, and PM2.5 emission rates from FG-MELT by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the following table:

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 90 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

Reference Test Method Table

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform and document non-certified visible emissions observations on a daily basis for 90 calendar days after normal production is initiated. If during these 90 calendar days, no visible emissions are detected, the reading frequency may be reduced to one reading per week. If during the observations there are any visible emissions detected, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that

emission point. If a certified reader is required, the visible emissions reading frequency by a non-certified shall revert back to a daily reading schedule for 90 calendar days. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1301(1)(c))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-FURNACEBH1 | 30 | 60.0 | R 336.1225, 40 CFR 52.21 (c) & (d) |
| 2. SV-FURNACEBH2 | 30 | 60.0 | R 336.1225, 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FG-DRYERCRUSHER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A 20,000 lb/hr iron and steel crusher and a metal chip dryer with drying capacity of 10,000 lb/hour and controlled by a smoke hood, 2.4 MMBtu/hr afterburner and the chip dryer baghouse.

Flexible Group ID: FGFACILITY

Emission Units: EU-RINGCRUSHER, EU-CHIPDRYER

POLLUTION CONTROL EQUIPMENT

Emissions from EU-CHIPDRYER are controlled by a smoke hood, a natural gas fired 2.4 MMBtu/hr afterburner and a fabric filter (baghouse) collector.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|----------------------|--------------|---|------------------|------------------------------------|---|
| 1. NO _x | 0.20 lb/hr | Hourly | FG-DRYERCRUSHER | SCV.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 2. CO | 0.20 lb/hr | Hourly | FG-DRYERCRUSHER | SCV.1 | R 336.1205(3), 40 CFR 52.21 (c) |
| 3. PM | 0.67 lb/hr | Hourly | FG-DRYERCRUSHER | SCV.1 | R 336.1205(3) |
| 4. PM10 | 0.64lb/hr | Hourly | FG-DRYERCRUSHER | SCV.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 5. PM2.5 | 0.52lb/hr | Hourly | FG-DRYERCRUSHER | SCV.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 6. VOCs | 1.01 lb/hr | Hourly | FG-DRYERCRUSHER | SCV.1 | R 336.1205(3) |
| 7. Visible Emissions | 5% Opacity | 6-minute average | FG-DRYERCRUSHER | SCVI.1 | R 336.1301 |

II. MATERIAL LIMIT(S)

1. Permittee shall combust only natural gas in FGD-DRYERCRUSHER. **(R336.1205)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days trial operation, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for the baghouse for FG-DRYERCRUSHER. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a

description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

- b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205(3), R 336.1910, R 336.1911, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-DRYERCRUSHER unless the smoke hood and the baghouses are installed and operating in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved PM/MAP as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d)).**
2. The permittee shall not operate FG-DRYERCRUSHER unless a gauge, which measures the pressure drop across each baghouse and sounds an alarm when the pressure drop falls below two inches gage or exceeds twelve inches water gauge, are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**
3. The permittee shall not operate FG-DRYERCRUSHER unless the natural gas fired 2.4 MMBtu/hr afterburner is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the afterburner includes maintaining a minimum temperature of 1400 °F and a minimum retention time of 0.5 seconds. **(R 336.1205(3), R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after written notification from the Air Quality Division, the permittee shall verify, PM, PM10, PM2.5, NO_x, CO, and VOC emission rates from FG-DRYERCRUSHER by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the following table:

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 90 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

Reference Test Method Table

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |
| NO _x | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOCs | 40 CFR Part 60, Appendix A |

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform and document non-certified visible emissions observations on a daily basis for 90 calendar days after normal production is initiated. If during these 90 calendar days, no visible emissions are detected, the reading frequency may be reduced to one reading per week. If during the observations there are any visible emissions detected, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. If a certified reader is required, the visible emissions reading frequency by a non-certified shall revert back to a daily reading schedule for 90 calendar days. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1301(1)(c))**
2. The permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion chamber of the natural gas fired 2.4 MMBtu/hr afterburner, on a continuous basis, during operation of FG-DRYERCRUSHER. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1205(3), R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21 (c) & (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-DRYERCRUSHERBH | 36 | 65 | R 336.1225, 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

| |
|---|
| FG-MILLS FLEXIBLE GROUP CONDITIONS |
|---|

DESCRIPTION

Two, 5,000 lb/hr iron and steel mills.

Flexible Group: FGFACILITY

Emission Unit: EU-MILL1, EU-MILL2

POLLUTION CONTROL EQUIPMENT

The mills are controlled by a fabric filter (baghouse) collector.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-------------------------|--------------|---|----------------------|--|---|
| 1. PM | 0.90 pph | Hourly | EU-MILL1 EU-MILL2 | SC V.1 | R 336.1205(3) |
| 2. PM10 | 0.85 pph | Hourly | EU-MILL1 EU-MILL2 | SC V.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 3. PM2.5 | 0.64 pph | Hourly | EU-MILL1 EU-MILL2 | SC V.1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 4. Visible Emissions | 5% Opacity | 6-minute average | EU-MILL1 EU-MILL2 | SC VI.1 | R 336.1301 |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days of trial operation, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for the baghouse for FG-MILLS. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205(3), R 336.1910, R 336.1911, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-MILLS unless the baghouse is installed and operating in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved PM/MAP as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate FG-MILLS unless a gauge, which measures the pressure drop across the baghouse and sounds an alarm when the pressure drop falls below 0.25 inches water or exceeds seven inches water gauge, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after written notification from the Air Quality Division, the permittee shall verify PM, PM10, and PM2.5 emission rates from FG-MILLS by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

Reference Test Method Table

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform and document non-certified visible emissions observations on a daily basis for 90 calendar days after normal production is initiated. If during these 90 calendar days, no visible emissions are detected, the reading frequency may be reduced to one reading per week. If during the observations there are any visible emissions detected, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. If a certified reader is required, the visible emissions reading frequency by a non-certified shall revert back to a daily reading schedule for 90 calendar days. Records of the non-certified

visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1301(1)(c))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-MILLSBH | 24.0 | 65.0 | R 336.1225, 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FG-PLANTBH
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emissions from, EU-CRUSHINGLINE, EU-FINISHINGLINE, EU-ASPDYSEG1, and EU-ASPDYSEG2 passing through three fabric filter (baghouse) collectors. Each fabric filter collector has its own stack.

Flexible Group: FGFACILITY

Emission Unit: EU-CRUSHINGLINE, EU-FINISHINGLINE, EU-ASPDYSEG1, and EU-ASPDYSEG2

POLLUTION CONTROL EQUIPMENT

Three fabric filter (baghouse) collectors.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|----------------------|--------------|---|------------------|------------------------------------|---|
| 1. NO _x | 0.39 lb/hr | Hourly | FG-PLANTBH | SC V. 1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 2. CO | 0.33 lb/hr | Hourly | FG-PLANTBH | SC V. 1 | R 336.1205(3), 40 CFR 52.21 (c) |
| 3. PM | 2.86 lb/hr | Hourly | FG-PLANTBH | SC V. 1 | R 336.1205(3) |
| 4. PM10 | 0.26 lb/hr | Hourly | FG-PLANTBH | SC V. 1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 5. PM2.5 | 0.16 lb/hr | Hourly | FG-PLANTBH | SC V. 1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 6. VOCs | 0.02 lb/hr | Hourly | FG-PLANTBH | SC V. 1 | R 336.1205(3) |
| 7. Visible Emissions | 5% Opacity | 6-minute | FG-PLANTBH | SC VI.1 | R 336.1301 |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days of trial operation, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for the baghouses for FG-PLANTBH. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

- b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205(3), R 336.1910, R 336.1911, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall not operate EU-CRUSHINGLINE, EU-FINISHINGLINE, EU-ASPDYSEG1, and EU-ASPDYSEG2 unless the three baghouses are installed and operating in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved PM/MAP as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**
- 2. The permittee shall not operate EU-CRUSHINGLINE, EU-FINISHINGLINE, EU-ASPDYSEG1 unless a gauge, which measures the pressure drop across the three baghouses and sounds an alarm when the pressure drop falls below 0.25 inches water gauge or exceeds seven inches water gauge, are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

- 1. Within 180 days after written notification from the Air Quality Division, the permittee shall verify PM, PM10, PM2.5, NO_x, CO, and VOC emission rates from FG-PLANTBH by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

Reference Test Method Table

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |
| NO _x | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOCs | 40 CFR Part 60, Appendix A |

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform and document non-certified visible emissions observations on a daily basis for 90 calendar days after normal production is initiated. If during these 90 calendar days, no visible emissions are detected, the reading frequency may be reduced to one reading per week. If during the observations there are any visible emissions detected, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. If a certified reader is required, the visible emissions reading frequency by a non-certified shall revert back to a daily reading schedule for 90 calendar days. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1301(1)(c))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-PLANTBH1 | 36 | 60 | R 336.1225, 40 CFR 52.21 (c) & (d) |
| 2. SV-PLANTBH2 | 36 | 60 | R 336.1225, 40 CFR 52.21 (c) & (d) |
| 3. SV-PLANTBH3 | 36 | 60 | R 336.1225, 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

| |
|--|
| FG-IRONLINE FLEXIBLE GROUP CONDITIONS |
|--|

DESCRIPTION

Miscellaneous iron and steel operations including: Magnetic separation, blending, packaging, crushing, and screening.

Flexible Group: FGFACILITY

Emission Units: EU-MAGSEPARATOR, EU-REPUBLICLINE, EU-IRONSCREENER, EU-BLUELINE

POLLUTION CONTROL EQUIPMENT

Fabric Filter Collector (baghouse)

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|----------------------|--------------|---|------------------|------------------------------------|---|
| 1. PM | 0.45 lb/hr | Hourly | FG-IRONLINE | SC V. 1 | R 336.1205(3) |
| 2. PM10 | 0.011 lb/hr | Hourly | FG-IRONLINE | SC V. 1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 3. PM2.5 | 0.004 lb/hr | Hourly | FG-IRONLINE | SC V. 1 | R 336.1205(3), 40 CFR 52.21 (c) & (d) |
| 4. Visible Emissions | 5% Opacity | 6-minute | FG-IRONLINE | SC VI.1 | R 336.1301 |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days of trial operation, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for the baghouse for FG-IRONLINE. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205(3), R 336.1910, R 336.1911, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG-IRONLINE unless the baghouse is installed and operating in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved PM/MAP as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate FG-IRONLINE unless a gauge, which measures the pressure drop across the baghouse and sounds an alarm when the pressure drop falls below 0.25 inches water gauge or exceeds seven inches water gauge, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after written notification from the Air Quality Division, the permittee shall verify PM, PM10, and PM2.5 emission rates from FG-IRONLINE by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the following table:

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 90 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

Reference Test Method Table

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform and document non-certified visible emissions observations on a daily basis for 90 calendar days after normal production is initiated. If during these 90 calendar days, no visible emissions are detected, the reading frequency may be reduced to one reading per week. If during the observations there are any visible emissions detected, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. If a certified reader is required, the visible emissions reading frequency by a non-

certified shall revert back to a daily reading schedule for 90 calendar days. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1301(1)(c))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SV-IRONLINE | 24 | 60 | R 336.1225, 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FGFACILITY CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

All previously identified emission units, flexible groups, and associated control devices.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|----------------------|--------------|--|------------------|------------------------------------|---|
| 1. NO _x | 7.51 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 2. CO | 9.02 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 3. PM | 24.8 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 4. PM ₁₀ | 10.15 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 5. PM _{2.5} | 8.21 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 6. VOC | 4.97 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 7. Individual HAP | 0.02 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |
| 8. Aggregate HAPs | 0.05 tpy | 12 month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.1 | R 336.1205(3) |

II. MATERIAL LIMIT(S)

1. Permittee shall combust no more than 214.71 MMSCF of natural gas per year in FG-FACILITY. **(R 336.1205(3))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the facility unless a fugitive dust control program has been submitted and approved by the AQD. The fugitive dust control program shall address all plant roadways, the plant yard, all material storage piles, and all material handling operations has been submitted, and is implemented and maintained. The permittee shall submit any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the plan, or amended plan shall be considered approved. **(R 336.1371, R 336.1372, Act 451 324.5524)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep the following records:
 - a) The amount of iron/steel processed (tons) by FG-DRYERCRUSHER and FG-MILLS, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - b) The amount of iron/steel (tons) processed by EU-MAGSEPARATOR, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - c) The amount of iron/steel processed (tons) by EU-REPUBLICLINE, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - d) The amount of iron/steel (tons) processed by EU-IRONSCREENER, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - e) The amount of iron/steel processed (tons) by FG-IRONLINE, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - f) The amount of iron/steel (tons) processed by FG-MELT, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - g) The amount of iron/steel (tons) processed by EU-CRUSHINGLINE, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - h) The amount of iron/steel (tons) processed by the screening/segregating operations of EU-ASPDYRSEG1 and EU-ASPDYRSEG2, on a monthly and rolling 12-month time period, as determined at the end of each calendar month.
 - i) The amount of iron/steel (tons) processed by EU-FINISHINGLINE, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - j) The amount of natural gas (SCF) combusted, on a monthly, and rolling 12-month time period, as determined at the end of each calendar month.
 - k) Emissions of PM, PM10, and PM2.5 in tons, on a monthly basis, and on a rolling 12-month time period at the end of each calendar month. Emissions shall be calculated in accordance with Appendix A.
 - l) Emissions of NO_x, CO, VOCs, individual HAPs, and aggregate HAPs in tons, on a monthly basis, and on a rolling 12-month time period at the end of each calendar month.
 - m) A record of visible emissions readings which includes:
 - i. The person making the visible emissions readings
 - ii. The time and date of the readings
 - iii. A notation of any visible emissions seen, the origin of the visible emissions, and the results of the readings from the Method 9 certified visible emissions reader.

(R 336.1205(3))

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENT(S) Permit Dates, Portable Equipment, MACT Requirements

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A Methodology for Calculating Emissions

The permittee shall calculate emissions of PM, PM10, and PM2.5 on both a monthly basis, and a 12-month rolling time period basis.

Emissions shall be calculated by multiplying the material throughput by an appropriate emission factor and reducing those emissions by an appropriate amount (%) if a control device, such as a baghouse, is used.

For each emission source, the permittee shall indicate the emission factor, which was used, the source of the emissions factor, the amount of material processed, and the control efficiency for any control devices used (as appropriate).

Following the performance of initial, or subsequent, stack testing, the most recent representative test results will be used to modify the appropriate emission factors.