

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

August 24, 2023

PERMIT TO INSTALL
120-80C

ISSUED TO
Ferrous Processing & Trading Co. – Pontiac Division

LOCATED AT
500 Collier Road
Pontiac, Michigan 48340

IN THE COUNTY OF
Oakland

STATE REGISTRATION NUMBER
B4146

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: June 28, 2023 | |
| DATE PERMIT TO INSTALL APPROVED: August 24, 2023 | 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 ₂ e | 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 condition 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 |
|------------------|--|--|-------------------|
| EUOLDSHREDDER | <p>Scrap metal shredder capable of processing 60 gross tons of product per hour. Emissions from the shredder are controlled by a water injection system and a 50,000 CFM fabric filter system. The shredder and associated equipment run on electrical power. Emissions from the secondary and tertiary separation processes are each controlled by a 30,000 CFM cyclone system. The shredder also has a feed conveyor, ferrous separation process with a gravity separator, non-ferrous separation system, associated conveyors, material storage, and associated process activities including but not limited to management of materials from the shredding operations.</p> <p>This emission unit will be superseded by EUSHREDDER, and all associated conditions will become void upon trial operation of the replacement fabric filter system.</p> | 1980 | NA |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|---|--|--------------------------|
| EUSHREDDER | Scrap metal shredder capable of processing 100 gross tons of product per hour. Emissions from the shredder are controlled by a water and foam injection system along with a particulate control system that operates with an air flow up to 100,000 CFM, consisting of a precipitator, followed by a cyclone, a high efficiency aerosol filtration (HEAF) system, and mist eliminator, operated in series. The shredder and associated equipment run on electrical power. The shredder also has a feed conveyor, ferrous separation process with a high-speed magnetic-separators, non-ferrous separation system, associated conveyors, material storage, and associated process activities including but not limited to management of materials from the shredding operations. | 1980, TBD | NA |

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.

EUOLDSHREDDER EMISSION UNIT CONDITIONS

DESCRIPTION

Scrap metal shredder capable of processing 60 gross tons of product per hour. Emissions from the shredder are controlled by a water injection system and a 50,000 CFM fabric filter system. The shredder and associated equipment run on electrical power. Emissions from the secondary and tertiary separation processes are each controlled by a 30,000 CFM cyclone system. The shredder also has a feed conveyor, ferrous separation process with a gravity separator, non-ferrous separation system, associated conveyors, material storage, and associated process activities including but not limited to management of materials from the shredding operations.

This emission unit will be superseded by EUSHREDDER, and all associated conditions will become void upon trial operation of the replacement fabric filter system.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

- Fabric Filter Dust Collector (Primary Cleaning Portion)
- Cyclone (Secondary & Tertiary Cleaning Portion)

I. EMISSION LIMIT(S)

1. The particulate emission from the primary cleaning operation shall not exceed 0.05 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis. ³ **(R 336.1331)**
2. The particulate emission from the secondary and tertiary cleaning operations shall not exceed 0.10 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis. ³ **(R 336.1331)**
3. The beryllium emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 2 micrograms per cubic meter of exhaust gases. ³
4. The cadmium emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 50 micrograms per cubic meter of exhaust gases. ³
5. The chromium emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 50 micrograms per cubic meter of exhaust gases. ³
6. The nickel emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 100 micrograms per cubic meter of exhaust gases. ³
7. The lead emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 150 micrograms per cubic meter of exhaust gases. ³
8. The copper emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 1,000 micrograms per cubic meter of exhaust gases. ³
9. The zinc emission from the primary cleaning, the secondary and tertiary cleaning operations shall not exceed 500 micrograms per cubic meter of exhaust gases. ³
10. Visible emissions from the fragmentizer shall not exceed a six-minute average of 20 percent opacity. ³ **(R 336.1301(a))**

II. MATERIAL LIMIT(S)

1. The permittee shall prevent any gas tanks from entering EUOLDSHREDDER.³

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUOLDSHREDDER unless a continuous program of fugitive dust control for all plant roadways, the plant yard, all material storage piles, and all material handling operations has been implemented.³
 - a) The permittee shall apply a suitable suppressant to all plant roadways twice monthly from April to September.
 - b) The permittee shall promptly clean up and remove any upholstery, plastic and other non-metal material which falls on the plant property or perimeter of the plant property and which may become windblown.
2. The permittee shall not operate EUOLDSHREDDER unless all four cyclones and fabric collector are installed and operating properly.³
3. The permittee shall not operate EUOLDSHREDDER unless the program describing the frequency and recording of scheduled maintenance inspections of the collector is maintained. This program shall include the following.³
 - a) All fans, ducts, and ripple boxes shall be inspected after each 8 hours of operation and cleaned when necessary.
 - b) All cyclones shall be inspected after each 40 hours of operation and cleaned when necessary.
 - c) A log book shall be maintained at the company office in which the hours of operation and all maintenance, repair, and pollution control measures taken shall be recorded on a daily basis.
4. The permittee shall not operate EUOLDSHREDDER unless the trash conveyor is totally enclosed and a chute at the discharge end of the trash conveyor is in place.³
5. The permittee shall prevent fires from starting in the pile of non-metal material through regular and frequent applications of water.³
6. The permittee shall take whatever action is necessary to maintain EUOLDSHREDDER in proper balance, including as a minimum, having the shredder rotor balanced and the shredder coupling and drive shaft aligned at least every two weeks.³
7. The permittee shall operate all spray nozzles whenever EUOLDSHREDDER is in operation, and heat trace all water lines for prevention of winter malfunction.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:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---|---|---|---|
| 1. SVSHREDDER ³ (Fabric Filter Stack) | 60 | 72.5 | NA |
| 2. SVSECCYCLONE (Secondary Cyclone Stack) ³ | 32 | 45.0 | NA |
| 3. SVTERTCYCLONE (Tertiary Cyclone Stack) ³ | 32 | 45.0 | NA |

IX. OTHER REQUIREMENT(S)

1. Upon the trial operation of the replacement particulate control system, all special conditions under EUOLDSHREDDER shall become void.

Footnotes:

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

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

³ This condition applies until the fabric filter system has been replaced.

⁴ This condition applies on an after commencement of trial operation of the new particulate control system.

**EUSHREDDER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Scrap metal shredder capable of processing 100 gross tons of product per hour. Emissions from the shredder are controlled by a water and foam injection system along with a particulate control system that operates with an air flow up to 100,000 CFM., consisting of a precipitator, followed by a cyclone, a high efficiency aerosol filtration(HEAF) system, and mist eliminator, operated in series. The shredder and associated equipment run on electrical power. The shredder also has a feed conveyor, ferrous separation process with a high speed magnetic separator, non-ferrous separation system, associated conveyors, material storage, and associated process activities including but not limited to management of materials from the shredding operations.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

- Water & Foam Injection System
- Particulate control system consisting of a precipitator, cyclone, aerosol filtration system, and mist eliminator, operated in series.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|-----------------------------------|---|--|------------------|------------------------------------|---|
| 1. PM ⁴ | 0.05 lbs/per 1000 lbs of exhaust gas ^a | Hourly | EUSHREDDER | SC V.1 | R 336.1331 |
| 2. PM ₁₀ ⁴ | 25.7 pph | Hourly | EUSHREDDER | SC V.1 | 40 CFR 52.21 (c) and (d) |
| 3. PM _{2.5} ⁴ | 25.7 pph | Hourly | EUSHREDDER | SC V.1 | 40 CFR 52.21 (c) and (d) |
| 4. VOC ⁴ | 53.2 tpy | 12-month rolling time period as determined at the end of each calendar month | EUSHREDDER | SC VI.7, SC VI.8 | R 336.1702(a) |

^a Calculated on a dry gas basis

5. Visible emissions from all exhaust points in EUSHREDDER shall not exceed a six-minute average of 20 percent opacity. ⁴ (R 336.1301, R 336.1303, R 336.1901, 40 CFR 52.21(c) and (d))

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 380,000 tons of material per 12-month rolling time period as determined at the end of each calendar month through EUSHREDDER. ⁴ **(R 336.1224, R 336.1225, R 336.1702, R 336.1901, 40 CFR 52.21(c) and (d))**
2. The permittee shall not process any asbestos tailing or waste materials containing asbestos in EUSHREDDER pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61, Subpart M. ⁴ **(40 CFR Part 61 Subpart M)**
3. The permittee shall not process batteries in EUSHREDDER. ^{1,4} **(R 336.1224, R 336.1225, R 336.1901)**
4. The permittee shall not process any gas tanks in EUSHREDDER unless they are flattened or punctured. ⁴ **(R 336.1225, R 336.1702(a), R 336.1901)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUSHREDDER unless the water and foam injection system is installed, maintained, and operated in a satisfactory manner as described in the MAP. ⁴ **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**
2. The permittee shall not operate EUSHREDDER unless the particulate control system is installed, maintained, and operated in a satisfactory manner as described in the MAP. ⁴ **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**
3. The permittee shall not operate EUSHREDDER unless the pressure drop across the HEAF of the particulate control system is at least 10 inches of water but not greater than 26 inches of water or within a pressure drop range specified in the malfunction abatement plan (MAP), as required under SC III.13. ⁴ **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
4. The permittee shall not operate EUSHREDDER unless the exhaust hood is installed, maintained, and operated in a satisfactory manner. Satisfactory operation and maintenance include, but is not limited to, ensuring compliance with SC I.3. ⁴ **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**
5. The permittee shall properly remove and properly dispose of fluids from materials to be shredded as specified in the plan in SC III.10 (or inspect and/or document that removal has been performed). As specified in the written plan for the management of materials, materials include but are not limited to vehicles, appliances, and industrial machinery. As specified in the written plan for the management of materials, fluids shall include, at a minimum, gasoline, motor oil, antifreeze, transmission oil, brake oil, power steering fluid, hydraulic fluid, and differential fluid. ⁴ **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**
6. The permittee shall properly remove and properly dispose of freon or other chlorofluorocarbons/halogenated chlorofluorocarbons (CFCs/HCFCs) from materials to be shredded as specified in the plan in SC III.11 (or inspect and/or document that removal has been performed). As specified in the written plan for the management of materials, materials include but are not limited to air conditioning units in vehicles, appliances, and industrial machinery. ^{1,4} **(R 336.1224, R 336.1225, R 336.1901)**
7. The permittee shall properly remove and properly dispose of mercury-containing devices from materials to be shredded as specified in the plan in SC III.10 (or inspect and/or document that removal has been performed). As specified in the written plan for the management of materials, materials include but are not limited to vehicles, appliances, and industrial machinery. ^{1,4} **(R 336.1224, R 336.1225, R 336.1901)**
8. The permittee shall stage all non-metal and automotive shredder residue (e.g., fluff) generated by EU-SHREDDER in a total volume not to exceed 10,000 cubic yards at any time. ⁴ **(R 336.1901)**

9. All fluids, non-metal, and waste materials generated by the EUSHREDDER shall be contained and disposed of or recycled in an acceptable manner in compliance with all applicable state and federal rules and regulations. ⁴ **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

10. Within 45 days of permit issuance, the permittee shall submit to the AQD District Supervisor an acceptable written plan demonstrating compliance with SCs II.2, II.3, II.4, and SCs III.5, III.6, III.7, III.8 and III.9. The permittee shall not operate EUSHREDDER unless the plan, or an alternate plan, is implemented and maintained. Any changes to the plan by the permittee or as reasonably requested by the AQD shall be submitted to the AQD District Supervisor within 30 days. ⁴ **(R 336.1224, R 336.1225, R 336.1301, R 336.1702(a), R 336.1901, 40 CFR Part 61 Subpart M)**

11. The permittee shall not operate EUSHREDDER unless the nuisance minimization plan for fire prevention for all material storage piles has been submitted within 45 days of permit issuance and is implemented and maintained. The nuisance minimization plan shall, at a minimum, specify the following:
 - a) An identification of all potential locations on-site for material storage piles.
 - b) An identification of all approved methods and materials for fire suppression.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a fire.

Amendments to the nuisance minimization plan shall be submitted to the AQD District Supervisor for review and approval. ^{1,4} **(R 336.1901)**

12. The permittee shall not operate EUSHREDDER unless the nuisance minimization plan for fugitive dust for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix A (or an amended plan approved by the AQD District Supervisor) has been implemented and is maintained. ^{1,4} **(R 336.1901)**

13. The permittee shall not operate EUSHREDDER unless a malfunction abatement plan (MAP) as described in Rule 911(2), for EUSHREDDER, has been submitted within 45 days of permit issuance, and is implemented and maintained. 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. ⁴ **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, devices to monitor the water injection rate, the foam injection rate, and the shredder motor current on a continuous basis for the water injection system on EUSHREDDER. ⁴ **(R 336.1224, R 336.1225, R 336.1301, R 336.1910)**

2. The permittee shall equip and maintain the HEAF portion of the particulate control system with a continuous pressure drop indicator. The permittee shall calibrate the pressure drop indicator in a satisfactory manner

acceptable to the AQD District Supervisor. ⁴ (R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))

3. The permittee shall not operate EUSHREDDER unless the conveyor(s), which carries the dry non-metal and automotive shredder residue, is covered and a chute at the discharge end of the conveyor is in place. ⁴ (R 336.1301, R 336.1303, R 336.1901)

V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor, the permittee shall verify the PM, PM10, and PM2.5 emission rate, the VOC emission factor (in lb/ton of material processed) from the shredder portion of EUSHREDDER, and/or visible emissions from EUSHREDDER by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| 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 |
| VOC | 40 CFR Part 60, Appendix A |
| Visible Emission | 40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 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. ⁴ (R 336.1224, R 336.1225, R 336.1301, R 336.1303, R 336.1331, R 336.1702, R 336.1901, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. ⁴ (R 336.1224, R 336.1225, R 336.1702, R 336.1901, 40 CFR 52.21(c) and (d))
2. The permittee shall keep, in a satisfactory manner, daily records of the water injection rate, the foam injection rate, and the shredder motor current from the water injection system on EUSHREDDER. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ⁴ (R 336.1224, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) and (d))
3. The permittee shall record the pressure drop of the particulate control system once per week in an acceptable manner. The permittee shall keep all records on file and make them available to the Department upon request. ⁴ (R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))
4. The permittee shall monitor EUSHREDDER to verify compliance with the opacity limit by taking visible emission readings utilizing EPA's Method 9, a minimum of once per calendar week when the equipment is operating. If visible emissions are observed the permittee shall take corrective action as described in the MAP and document the corrective action taken. ⁴ (R 336.1301, R 336.1303, 40 CFR 52.21(c) and (d))
5. The permittee shall keep, in a satisfactory manner, weekly records of all visible emission readings. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, status of visible emissions (percent opacity), and any corrective action taken. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ⁴ (R 336.1301, R 336.1303, 40 CFR 52.21(c) and (d))

6. The permittee shall keep daily records of the total volume of non-metal material and fluff staged. The records shall be kept in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ⁴ **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d))**
7. The permittee shall keep records of the amount of material processed in EUSHREDDER in tons per calendar month, and in tons per 12-month rolling time period as determined at the end of each calendar month. The records shall be kept in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ⁴ **(R 336.1224, R 336.1225, R 336.1702, R 336.1901, 40 CFR 52.21(c) and (d))**
8. The permittee shall keep the following information on a monthly basis for EUSHREDDER:
 - a) VOC emission factor, in lb VOC/ton of material processed. The permittee shall use an emission factor of 0.28 lb VOC/ton of material processed unless an alternate emission factor has been approved by the AQD District Supervisor.
 - b) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - c) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep all records on file at the facility and make them available to the Department upon request. ⁴ **(R 336.1702(a))**
9. The permittee shall keep records of all fugitive dust control inspections and all dust control activities as required by Appendix A. The permittee shall keep all records on file and make them available to the Department upon request. ⁴ **(R 336.1901, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUSHREDDER following the installation of the particulate control system.
(R 336.1201(7)(a))

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. SVSHREDDER ⁴ | 72 | 72.5 | R 336.1225, 40 CFR 52.21(c) and (d) |

IX. OTHER REQUIREMENT(S)

1. Upon the trial operation of the new particulate control system, all special conditions under EUSHREDDER shall become effective. **(R 336.1224, R 336.1225, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) and (d))**

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).
³ This condition applies until the fabric filter system has been replaced.
⁴ This condition applies on an after commencement of trial operation of the new particulate control system.

APPENDIX A
Nuisance Minimization Plan for Fugitive Dust Control

I. Plant/Shredder

- a) The drop distance at each transfer point throughout the shredder shall be reduced to the minimum the equipment can reasonably achieve.
- b) Corrective actions and/or operational changes shall be undertaken to reduce opacity throughout the plant should opacity above 10% be observed.
- c) Records of all corrective actions and operational changes undertaken to reduce opacity.

II. Truck Traffic

- a) On-site vehicles shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within six inches of the top of any sideboard, side panel or tailgate, otherwise, the truck shall be tarped.
- b) Corrective actions and/or operational changes shall be undertaken to reduce opacity truck traffic should opacity above 20% be observed.
- c) Records of all corrective actions and operational changes undertaken to reduce opacity.

III. Site Roadways and the Plant Yard

- a) The dust on the site roadways and the plant yard shall be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet an opacity limit of 5% as determined by reference test method 9D.
- b) All paved roadways/plant yard shall be swept a minimum of twice per calendar week between applications of dust suppressants.
- c) Any material spillage on roads shall be cleaned up in a timely manner.
- d) Corrective actions and/or operational changes shall be undertaken to reduce opacity from site roadways and throughout the plant yard should opacity above 5% be observed.
- e) A record of all applications of dust suppressants, and roadway and the plant yard sweepings shall be kept on file for the most recent five-year period and be made available to the AQD upon request.
- f) Install rumble strips of a minimum length of 20 feet, minimum width of 10 feet, and a minimum depth of 2 inches or equivalent equipment at each plant exit to public roads.
- g) All rumble strips or equivalent equipment shall be cleaned a minimum of once per calendar day to ensure proper functionality. A record of each cleaning of rumble strips shall be kept on file and be made available to the AQD upon request.
- h) Signs indicating a speed limit of 5 mph shall be placed along the roadway in a location easily visible to truck drivers.
- i) Records of all corrective actions and operational changes undertaken to reduce opacity.

IV. Storage Piles

- a) Stockpiling of all nonmetallic materials shall be performed to minimize drop distance and control potential dust problems.
- b) Stockpiles shall be watered on an as needed basis in order to meet an opacity limit of 20% as determined by reference test method 9D. Equipment to apply water or dust suppressant shall be available at the site, or on call for use at the site, within a given operating day.
- c) Corrective actions and/or operational changes shall be undertaken to reduce opacity from storage piles should opacity above 20% be observed.
- d) A record of all watering shall be kept on file for the most recent five-year period and be made available to the AQD upon request.
- e) Records of all corrective actions and operational changes undertaken to reduce opacity.

V. AQD/EGLE Inspection

The provisions and procedures of this plan are subject to adjustment by written notification from the AQD, if following an inspection, the AQD finds the fugitive dust requirements and/or the permitted opacity limits are not being met.