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

November 19, 2024

PERMIT TO INSTALL
46-12B

ISSUED TO
Ervin Industries Inc. Amasteel Div.

LOCATED AT
915 Tabor Street
Adrian, Michigan 49221

IN THE COUNTY OF
Lenawee

STATE REGISTRATION NUMBER
B1754

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: **July 3, 2024**	
DATE PERMIT TO INSTALL APPROVED: **November 19, 2024**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

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_2S	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
EUSWEEPERBOOTH	One containment booth used for emptying indoor sweeping activities. Controlled by Baghouse-0005.	12/1/2023	FG0005
EUMIXEROOM	Two mixer mullers and a bag breaking station used for refractory mixer room activities. Controlled by Baghouse-0005	TBD	FG0005
EURESCREENHOIST	Three material dump hoists. Controlled by Baghouse-0005.	TBD	FG0005
EUSCREENLINE	Two material holding tanks and two material elevators. Controlled by Baghouse-0005	TBD	FG0005
EURMLTDUMPHOIST	Handles processed steel shot to be recycled to the EAF. Controlled by Baghouse-0005.	12/12/2000	FG0005
EUACSCRNLINEBINS	Cast steel shot storage tank(s). Controlled by Baghouse-0005.	07/15/1994	FG0005
EU#1LINEDRYELEV1	Elevator off of shot dryer. Controlled by Baghouse-0005.	06/01/1962	FG0005
EU#1LINEDRYELEV2	Elevator off of shot dryer. Controlled by Baghouse-0005.	06/01/1962	FG0005
EUAMALINEBEATSYS	(3) Amaline elevators, (2) Beaters, (2) Magnetic Separators. Controlled by Baghouse-0005.	11/01/1976	FG0005
EU#4BEATERSYSTEM	Tub Dump Hoist, Elevator, Classifier, Beater Cabinet. Controlled by Baghouse-0005.	1972	FG0005
EU0007	Process equipment utilized for the producing, cleaning, and sizing of abrasive materials for shipment controlled by a 26,420 scfm baghouse. Consists of the following equipment: No. 1 beater & elevator (3 units), No. 6 rescreen line riddles (3 vibratory screener units) and dump hoist (1 unit), grit screen line riddles (21 vibratory screener units), grit screen line elevators (3 units), grit screen line main holding tank (1 unit).	11/1/1976 3/1/2004 2/1/2006 8/1/2006	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU0006	Process equipment utilized for the producing, and sizing of abrasive materials for shipment controlled by a 60,000 scfm cartridge collector. Consists of the following equipment: grit machines (15 units), grit elevators (19 units), dump hoists (10 units), riddles (48 vibratory screener units), conveyor transfer point (1 unit).	5/1/2024	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.

EU0007
EMISSION UNIT CONDITIONS

DESCRIPTION

Process equipment utilized for the producing, cleaning, and sizing of abrasive materials for shipment. Consists of the following equipment: No. 1 beater & elevator (3 units), No. 6 rescreen line riddles (3 vibratory screener units) and dump hoist (1 unit), grit screen line riddles (21 units), grit screen line elevators (3 units), grit screen line main holding tank (1 unit).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

26,420 scfm fabric filter dust collector (baghouse)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gas[a]	Hourly	EU0007	SC V.1	R 336.1331(1)(c)
2. PM10	1.2 pph	Hourly	EU0007	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
3. PM2.5	1.2 pph	Hourly	EU0007	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
4. Visible Emissions	5 percent opacity	6-minute average	EU0007	SC V.2	R 336.1301, R 336.1331

[a] Calculated on a wet gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all components of the EU0007 manufacturing process equipment in proper operating condition at all times. The owner or operator of EU0007 shall maintain a log of all significant maintenance activities conducted and all significant repairs made to the manufacturing process equipment. This information shall be kept on file for five years and made available to the Air Quality Division upon request. **(R 336.1205)**

2. The permittee shall not operate EU0007 unless the Malfunction Abatement Plan for the baghouse collector, specified in SC VI. 3, has been implemented and is maintained. **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU0007 unless the baghouse collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall maintain and calibrate a differential pressure measuring device to conduct on a once-per-shift pressure drop readings for the EU0007 baghouse collector. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 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. Upon request of the AQD District Supervisor, the permittee shall verify PM, PM10, and PM2.5 emission rates from EU0007 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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. **(R 336.1205, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall perform a visible emission observation at least once a day when EU0007 is operating during daylight hours, using a method acceptable to the AQD. If the permittee observes visible emissions, the permittee shall do one of the following within 60 minutes of the observation:
   a) Perform a Method 9 for visible emissions. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the observation points exceed 20% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions and initiate prompt corrective action: or
   b) Determine the cause of the visible emissions and initiate prompt corrective action.
   c) Cease operations until the cause of the visible emissions are determined and corrected prior to operating the plant again.

   Records will include the time of each visible emissions observation and if visible emissions were observed, identification of the cause, the corrective action taken, and the time of completion of corrective action, a Method 9 reading if performed, the reason if an observation or Method 9 reading is not taken. If the visible emissions continue for more than 2 hours, in excess of an emission standard, per Rule 912 an excess emissions report must be made to EGLE. **(40 CFR 60.92, R 336.2001, R 336.2003, R 336.2004)**

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 records and calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor and record the pressure drop across the EU0007 baghouse collector on a once-per-shift basis. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall monitor and record the following from the baghouse for EU0007 on a once-per-shift basis:
   a. fan inlet static pressure (in. wg)
   b. fan motor amperes (amp),

The permittee shall complete the calculations, as outlined in Appendix A, in a format acceptable to the AQD District Supervisor. The permittee shall keep these records on file at a location approved by the AQD District Supervisor and make them available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

4. The permittee shall not operate EU0007 unless a MAP as described in Rule 911(2), for the baghouse, has been submitted before trial operation, and is implemented and maintained. 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 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 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. SV11	39 x 52	12	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 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).

EU0006
EMISSION UNIT CONDITIONS

DESCRIPTION

Process equipment utilized for the producing, and sizing of abrasive materials for shipment. Consists of the following equipment: grit machines (15 units), grit machine elevators (19 units), dump hoists (10 units), riddles (48 vibratory screener units), conveyor transfer point (1 unit).

POLLUTION CONTROL EQUIPMENT

60,000 scfm cartridge collector (collector)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lbs per 1000 lbs of exhaust gas[a]	Hourly	EU0006	SC V.1 SC V.2	R 336.1331(1)(c)
2. PM10	1.35 pph	Hourly	EU0006	SC V.1 SC V.2	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
3. PM2.5	0.27 pph	Hourly	EU0006	SC V.1 SC V.2	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
4. Visible Emissions	5 percent opacity	6-minute average	EU0006	SC V.3	R 336.1301, R 336.1331

[a] Calculated on a wet gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all components of the EU0006 manufacturing process equipment in proper operating condition at all times. The owner or operator of EU0006 shall maintain a log of all significant maintenance activities conducted and all significant repairs made to the manufacturing process equipment. This information shall be kept on file for five years and made available to the Air Quality Division upon request. **(R 336.1205)**

2. The permittee shall not operate EU0006 unless the Malfunction Abatement Plan for the cartridge collector, specified in SC VI. 3, has been implemented and is maintained. **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU0006 unless the cartridge collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall maintain and calibrate a differential pressure measuring device to conduct once-per-shift pressure drop readings for the EU0006 cartridge collector. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 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 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EU0006, the permittee shall verify PM, PM10, and PM2.5 emission rates from EU0007 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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. **(R 336.1205, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

2. Upon request of the AQD District Supervisor, the permittee shall verify PM, PM2.5, and PM10 emission rates from EU0006 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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. **(R 336.1205, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall perform a visible emission observation at least once a day when EU0006 is operating during daylight hours, using a method acceptable to the AQD. If the permittee observes visible emissions, the permittee shall do one of the following within 60 minutes of the observation:
   a) Perform a Method 9 for visible emissions. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the observation points exceed 20% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions and initiate prompt corrective action: or
   b) Determine the cause of the visible emissions and initiate prompt corrective action.
   c) Cease operations until the cause of visible emissions are determined and corrected prior to operating the plant again.

   Records will include the time of each visible emissions observation and if visible emissions were observed, identification of the cause, the corrective action taken, and the time of completion of corrective action, a Method 9 reading if performed, the reason if an observation or Method 9 reading is not taken. If the visible emissions continue for more than 2 hours, in excess of an emission standard, per Rule 912 an excess emissions report must be made to EGLE. **(40 CFR 60.92, R 336.2001, R 336.2003, R 336.2004)**

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 records and calculations in a format acceptable to the AQD District Supervisor and make them available by 15th of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor and record the pressure drop across the EU0006 cartridge collector on a once-per-shift basis. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall monitor and record the following from the cartridge collector for EU0006 on a once-per-shift basis:
   a. fan inlet static pressure (in. wg)
   b. fan motor amperes (amp),
   c. VFD load (in hertz).

   The permittee shall complete the calculations, as outlined in Appendix A, in a format acceptable to the AQD District Supervisor. The permittee shall maintain the records monthly and 12-month rolling time period as determined at the end of each calendar month. The permittee shall keep these records on file at a location approved by the AQD District Supervisor and make them available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

4. The permittee shall not operate EU0006 unless a MAP as described in Rule 911(2), for the cartridge collector, has been submitted before trial operation, and is implemented and maintained. 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 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 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. SV14	45 x 55	13	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 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).

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
FG0005	Shot processing equipment controlled by Baghouse-0005. (Also known as the Cox East dust collector.)	EURMLTDUMPHOIST EUSWEEPERBOOTH EUACSCRNLINEBINS EU#1LINEDRYELEV1 EU#1LINEDRYELEV2 EUAMALINEBEATSYS EU#4BEATERSYSTEM EUMIXERROOM EURESCREENHOIST EUSCREENLINE

FG0005
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Shot processing equipment controlled by Baghouse-0005. (Also known as the Cox East dust collector.)

Emission Unit: EUSWEEPERBOOTH, EURMLTDUMPHOIST, EUACSCRNLINEBINS, EU#1LINEDRYELEV1, EU#1LINEDRYELEV2, EUAMALINEBEATSYS, EU#4BEATERSYSTEM, EUMIXERROOM, EURESCREENHOIST, EUSCREENLINE

POLLUTION CONTROL EQUIPMENT

Baghouse-0005 dust collector (20,000 SCFM)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.01 lb/ 1000 lb of exhaust gas[a,]	Hourly	FG0005	SC VI.1 and Appendix 4	R 336.1331(1)(c)
2. PM10	0.90 pph	Hourly	FG0005	SC VI.1 and Appendix 4	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. PM2.5	0.90 pph	Hourly	FG0005	SC VI.1 and Appendix 4	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
[a] Calculated on a wet gas basis					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUMIXERROOM and EUSWEEPERBOOTH concurrently. [1] **(R 336.1331(1)(c), R 336.1910)**

2. The permittee shall not operate EUSWEEPERBOOTH and EURESCREENHOIST concurrently. [1] **(R 336.1331(1)(c), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FG0005 unless the baghouse is installed and operating properly.[1] **(R 336.1331(1)(c), R 336.1910)**

2. The permittee shall not operate the process lines unless the Fugitive Dust Control Plan specified in Appendix 9 has been implemented and is maintained.[1] **(R 336.1371(1), R 336.1372, Act 451 324.5524)**

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 PM, PM2.5, and PM10 emission rates from FG0005 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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. **(R 336.1205, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall record, on a daily basis, the pressure drop across the baghouse. If an excursion occurs the normal operating parameters of 1.5 inches H_2O to 5.5 inches H_2O column, personnel shall observe the baghouse exhaust vent and roof monitor for visible emissions. If there are visible emissions:
    a. Visible emissions reading shall be made, according to EPA Method 9.
    b. Repairs or remedial action will be taken within 24 hours to correct the pressure drop excursion to within stated normal range.

    Recordkeeping shall be done in accordance with Appendix 4. Monthly summary reports are to be completed and made available, upon request by the District Supervisor, no later than 15 days after the completed month.[1] **(R 336.1910, R 336. 2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall inspect the dust collector for broken or damaged parts, on a monthly basis, and replace/repair the broken and damaged parts, as required. Monthly reports shall be completed and made available upon request of the District Supervisor no later than 15 days after the completed month.[1] **(R 336.1910, R 336. 2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall monitor, on a daily basis, areas/equipment of FG0005 that are subject to the Fugitive Dust Control Plan in Appendix 9. Logs shall be kept, noting the conditions observed and the actions taken.[1] **(R 336.1371(1), R 336.1372, Act 451 324.5524)**

4. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the duration of time EUMIXERROOM operates on a weekly basis. **(R 336.1331(1)(c), R 336.1910)**

5. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the duration of time EUSWEEPERBOOTH operates on a weekly basis. **(R 336.1331(1)(c), R 336.1910**

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 EUSWEEPERBOOTH. **(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. SV12	36	7	R 336.2803, R 336.2804, 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).

Appendix 4. Recordkeeping

EU0007, FG0005 and FG0009:

1. Pressure drop readings, in inches of H_2O, will be recorded at the fabric filter collector at least once per day and placed in an appropriate log sheet for review that will also identify the date, time and collector in use. These sheets will also contain the normal operational pressure drop range of the collector. Any deviations outside the normal operational ranges shall require recordings every four hours until such time that the collector is brought back to within that normal operational range. The logs will contain comments that indicate the possible reason for the deviation and on actions taken to bring the collector back to within the normal operational range. The log sheets will also contain zeroing checks of the gauges at least once per week. Gauge lines will be purged as needed with such action recorded on the log sheets.

2. Whenever visual observations are necessary to evaluate performance of the system, the results shall be recorded in 15 second increments using the required format as outlined in EPA Method 9. This data will be placed in a tabular form and compiled on a quarterly (3 month) basis.

Appendix 9. Miscellaneous - Fugitive Dust Program

FUGITIVE DUST PROGRAM

COX EAST (FG0005) DUST COLLECTOR

ERVIN AMASTEEL

915 TABOR STREET, ADRIAN, MICHIGAN 49221

ORIGINAL DATE: 5-8-91
REVISION DATE: 8-2-08

I. Use of Technologies, Operating Practices or Methods to control Fugitive Hard Cast Dust listed in R336.1372.

A. Transporting of Bulk Hard Cast Dust.

1. Loaded Roura Hoppers of Hard Cast Dust-will be transported with Lift Trucks at speeds not to exceed 5 M.P.H. so Dust will not. blow out of the Hoppers. This will be implemented immediately.

2. All Lift Trucks and Roura Hoppers used to transport Hard Cast Dust will be cleaned of residue at the pile site after unloading. This will be implemented immediately.

3. Roura Hoppers used to transport Hard Cast Dust will be filled to a level (6" under top of Hopper) that prevents spillage during transport. This will be implemented immediately.

4. Roura Hoppers being used to transport Hard Cast Dust will be inspected every three months to insure that they do not leak. This will be implemented immediately.

B. Conveying of Hard Cast Dust.

1. Roura Hoppers used to transport Hard Cast Dust will be Positioned under the Dust Separator Non-Metallic Discharge Point so that the Discharge Dust drops no further than the total height of the Roura Hopper. This will be implemented immediately.

2. Spilled Hard Cast Dust under the Discharge Points will be cleaned up daily. This will. be implemented immediately.

C. Building Ventilation of Hard Cast Dust.

1. Localized Hoods and Duct Work are currently in operation to collect Fugitive Dust off the Hard Cast Operation. These Hoods and Duct Work are directly connected to the Hard Cast Dust Collector.

II. Methods for controlling dust Generated from driveways between the months of April through October.

A. When visible opacity is noted at wind speeds less than 30 MPH the concrete and asphalt driveways will be swept or treated by approved methods. Dirt driveways will be sprayed with water or other approved methods.

Appendix 11

The permittee shall calculate and record the mass flow rate(s) that goes through the control device during the demonstration of compliance (independent stack testing event) using all of the following:

a) The velocity pressure, VP, as measured on EU0006 SC VI.2 and EU0007 SC VI.2.
c) The following equations:

$$Q = V * A$$

$$V = 4005 * \sqrt{VP}$$

Where:
V = Velocity (ft/min)
VP = Velocity pressure (w.g.)
Q = Volumetric Flow (CFM)
A = Cross-sectional area of the duct (ft^2)

When measuring the velocity pressure of the collectors, the system parameters, outlined in SC VI.3 in EU0006 and SC VI.3 in EU0007, will be noted at 50%, 60%, 70%, 80%, 90%, and 100% of the fan loads/RPM levels for EU0006 and at 100% of the load for EU0007. Once completed, a fan performance curve, will be established between measured flows (obtained during stack testing), and the system parameters.

Once per shift the permittee will record the system parameters, outlined in SC VI.3 in EU0006 and SC VI.3 in EU0007. The parameters will be correlated to the CFM of the control device using the fan performance curve. The fan performance curve will be used to determine the CFM of the control device using the fan shaft power (hp), the fan static pressure (in.wg), and the fan rotation rate (rpm).

The fan shaft power will be calculated using the following formula.

hp = (480 volts) x (motor amps) x (sqrt of 3) x (80% efficiency) / 1000)

The fan rotation rate will be calculated using the following formula;

RPM = (actual frequency hz /60 hz) x 1782 (nameplate of motor rpm).