

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

January 30, 2024

**PERMIT TO INSTALL
46-12A**

**ISSUED TO
Ervin Industries, Inc.**

**LOCATED AT
915 Tabor Street
Adrian, Madison Twp., 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: January 5, 2024	
DATE PERMIT TO INSTALL APPROVED: January 30, 2024	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
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. 2 heat treat dryer elevator (1 unit), 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
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).	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.

**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. 2 heat treat dryer elevator (1 unit), 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%	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)

- 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 portable 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),
 - 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 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))**

- 3. 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%	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)

4. 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 and quantify emission rates of PM, PM10 and PM2.5, from EU0006 by testing at owner's expense, in accordance with Department requirements, in order to continue operation. Within 60 days of permit issuance, the permittee shall submit to the AQD Technical Programs Unit and District Office a complete test plan. The test plan will include the actual operating rate of the collector, and this will be the through put rate for the performance test. The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 18 months of permit issuance. **(R 336.1205(1)(a), R 336.1205(3), 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 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 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

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 EU0006. **(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. 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).

APPENDIX A

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 (ft²)

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.

$$hp = (480 \text{ volts}) \times (\text{motor amps}) \times (\text{sqrt of } 3) \times (80\% \text{ efficiency}) / 1000$$

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

$$RPM = (\text{actual frequency hz} / 60 \text{ hz}) \times 1782 \text{ (nameplate of motor rpm)}.$$