

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

January 30, 2024

PERMIT TO INSTALL
38-06A

ISSUED TO
Crimson Holdings, LLC

LOCATED AT
1336 East Maumee Street
Adrian, Michigan 49221

IN THE COUNTY OF
Lenawee

STATE REGISTRATION NUMBER
E8117

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: September 6, 2023 | |
| DATE PERMIT TO INSTALL APPROVED: January 30, 2024 | SIGNATURE:  |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

Table of Contents

| | |
|--|----|
| COMMON ACRONYMS | 2 |
| POLLUTANT / MEASUREMENT ABBREVIATIONS..... | 3 |
| GENERAL CONDITIONS | 4 |
| EMISSION UNIT SPECIAL CONDITIONS..... | 6 |
| EMISSION UNIT SUMMARY TABLE | 6 |
| EU-SPRAY-DRYER..... | 7 |
| FGFACILITY CONDITIONS..... | 10 |

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 |
|-------------------------|---|--|--------------------------|
| EU-SPRAY-DRYER | Egg spray drying operation consisting of a drying chamber, a powder conveyor, a pneumatic conveyor, a fabric filter product collector, and a cyclonic product collector. The dryer is equipped with a packed bed scrubber with a mist eliminator. | 1984/2021 2023 | 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.

**EU-SPRAY-DRYER
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Egg spray drying operation consisting of a drying chamber, a powder conveyor, a pneumatic conveyor, a fabric filter product collector, and a cyclonic product collector. The dryer is equipped with a packed bed scrubber with a mist eliminator.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Fabric filter dust collector
 Packed bed scrubber with a mist eliminator

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|---|--|------------------|------------------------------------|---|
| 1. VOC | 7.7 tpy | 12-month rolling time period as determined at the end of each calendar month | EU-SPRAY-DRYER | SC V.1, VI.4 | R 336.1702(a) |
| 2. PM | 0.00031 lb/1000 lb of exhaust gases calculated on a dry gas basis | Hourly | EU-SPRAY-DRYER | SC V.1 | R 336.1331 |
| 3. PM10 | 0.04 pph | Hourly | EU-SPRAY-DRYER | SC V.1 | 40 CFR 52.21 (c) & (d) |
| 4. PM2.5 | 0.04 pph | Hourly | EU-SPRAY-DRYER | SC V.1 | 40 CFR 52.21 (c) & (d) |

5. Visible emissions from EU-SPRAY-DRYER shall not exceed a six-minute average of 5 percent opacity. (R 336.1301, R 336.1331)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-SPRAY-DRYER unless the fabric filter dust collector pressure drop is maintained at less than 4 inches of water column. (R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))
2. The permittee shall not operate EU-SPRAY-DRYER unless the packed bed scrubber acid section pH, base section pH, and liquid flow rate are maintained as specified in the nuisance minimization plan for odors. (R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) & (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-SPRAY-DRYER unless the fabric filter dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall equip and maintain the fabric filter baghouse dust collector with a pressure drop monitoring device. **(R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
3. The permittee shall not operate EU-SPRAY-DRYER unless the packed bed scrubber with a mist eliminator is installed, maintained, and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) & (d))**
4. The permittee shall equip and maintain the packed bed scrubber with an acid section pH monitor, a base section pH monitor, and a liquid flow rate indicator. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor, the permittee shall verify the PM, PM10, PM2.5, and/or VOC emission rates from EU-SPRAY-DRYER by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

| Pollutant | Test Method Reference |
|------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |
| VOCs | 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 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 336.1702(a), R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (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 by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702(a))**
2. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the pressure drop of the fabric filter dust collector on a daily basis. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
3. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, records of the following for each odor neutralizer used:
 - a) The name, manufacturer, and chemical composition.
 - b) The dates used.
 - c) The usage rate.

The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

4. The permittee shall calculate the VOC emission rate from EU-SPRAY-DRYER for each month and 12-month rolling time period as determined at the end of each calendar month using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1702(a))**
5. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the packed bed scrubber acid section pH, base section pH, and liquid flow rate on a daily basis. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1901, R 336.1910, 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 the packed bed scrubber. **(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. SV-SCRUBBER | 56 | 50 | R 336.1225 40 CFR 52.21 (d) &(d) |

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FG FACILITY CONDITIONS

DESCRIPTION

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

POLLUTION CONTROL EQUIPMENT

Fabric filter dust collectors

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain a nuisance minimization plan for odors (NMPO). The NMPO shall include at a minimum, but not be limited to:
 - a) Procedures for maintaining and operating the facility in a manner that minimizes the release of odors to the outside air.
 - b) Procedures that shall be taken to address odor complaints.
 - c) A plan for corrective action to address any odor releases to the outside air.

Within 90 days of commencement of operation of the packed bed scrubber, the permittee shall revise the NMPO to include the acceptable pH range of the acid section, the acceptable pH range of the base section, and the acceptable range of the scrubber liquid flow rate. The permittee shall submit the updated plan to the AQD District Supervisor for review and approval.

If at any time the plan fails to address or inadequately addresses odor management, the permittee shall amend the plan within 30 days after such an event occurs. The permittee shall also amend the plan within 30 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the plan and any amendments to the plan to the AQD District Supervisor for review and approval. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to minimize odors.¹ **(R 336.1901)**

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)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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