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

November 18, 2021

PERMIT TO INSTALL
165-15A

ISSUED TO
Michigan Potash Operating, LLC

LOCATED AT
Schofield Road and 120th Avenue
Evart Township, Michigan 49631

IN THE COUNTY OF
Osceola

STATE REGISTRATION NUMBER
P0655

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 24, 2021**	
DATE PERMIT TO INSTALL APPROVED: **November 18, 2021**	SIGNATURE: MaryAnn Dolehanty
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

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

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

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_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 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
EUWATERSWEETENING	Solution extraction process to recover sodium chloride (salt) and potassium chloride (potash) from the subsurface using a heated brine solution. An air stripper is used to remove hydrogen sulfide (H_2S) from the extracted brine. When the brine is sour (60 ppmw or more H_2S), the air stripper exhaust gas is routed to a thermal oxidizer followed by a caustic scrubber to control H_2S emissions. When the brine is sweet, the air stripper exhaust gas is routed to the caustic scrubber to control H_2S emissions.	TBD	NA
EUSALTDRYING	The sodium chloride (salt) brine feed from the water sweetening process goes through evaporators to remove water and is then processed in centrifuges to separate out the solids. The solids are placed in a natural gas-fired dryer for further moisture removal. Particulate emissions from the dryer are vented to a cyclone followed by a wet scrubber.	TBD	NA
EUSALTCOMPACTION	Sodium chloride (salt) crushing, handling, cooling, compaction, screening, polishing, and storage in an enclosed building. Some equipment is subject to NSPS OOO. Particulate emissions are captured at various pickup points and vented to a cyclone followed by a baghouse.	TBD	NA
EUSALTBULKLOAD1	Salt bulk product truck loading located in an enclosed building adjacent to the salt compaction building, subject to NSPS OOO.	TBD	FGBULKSALTLOAD
EUSALTBULKLOAD2	Salt bulk product truck loading located in the salt storage building, subject to NSPS OOO.	TBD	FGBULKSALTLOAD

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUPOTASHDRYING	The potassium chloride (potash) brine feed from the water sweetening process goes through evaporators to remove water from the brine and is then processed in centrifuges to separate out the solids. The solids are placed in a natural gas-fired dryer for further moisture removal. Particulate emissions from the dryer are vented to a cyclone followed by a wet scrubber.	TBD	NA
EUPOTASHCOMPACTION	Potassium chloride (potash) crushing, handling, cooling, compaction, screening, polishing, and storage in an enclosed building. Particulate emissions are captured at various pickup points (hoods) which are vented to a cyclone followed by a baghouse.	TBD	NA
EUPOTASHBULKLOAD	Potash bulk product truck loading located in an enclosed building.	TBD	NA
EUBOILER1	A natural gas-fired boiler equipped with an ultra-low NO_x burner to produce steam for the process operations. The boiler has a maximum heat input of 99.9 MMBTU/hr.	TBD	FGBOILERS
EUBOILER2	A natural gas-fired boiler equipped with an ultra-low NO_x burner to produce steam for the process operations. The boiler has a maximum heat input of 99.9 MMBTU/hr.	TBD	FGBOILERS
EUSPACEHEATERS	Natural gas-fired space heaters used for facility heating, ventilation, and cooling systems. Total heat input is 28 MMBTU/hr.	TBD	NA
EUEMERGRICE	Diesel-fired emergency generator engine rated up to 6,000 HP.	TBD	FGRICE
EUFIRERICE	Diesel-fired emergency fire pump engine rated up to 71 HP.	TBD	FGRICE
EUCOOLINGTOWER	Four cell indirect cooling tower with drift eliminators.	TBD	NA
EUDIESELTANK1	Diesel fuel storage tank.	TBD	FGTANKS
EUDIESELTANK2	Diesel fuel storage tank.	TBD	FGTANKS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUPROCESSTANKS	Process tanks for (or storage of): brine, scrubbing solution, sodium hydroxide (NaOH), hydrogen peroxide (H_2O_2), equalization and clarification, injection water, caustic soda, condensate, quench water, thickener, centrate, floccular maturing/dosing, boil out storage, salt and potash repulp, and/or salt and potash dissolving.	TBD	FGTANKS
EUACIDTANK	Acid storage tank.	TBD	FGTANKS
EUACIDCIRCTK	Acid circulation tank.	TBD	FGTANKS
EUCITRICTKS	Citric mix/use storage tanks.	TBD	FGTANKS
EUBLR-CTTANKS	Storage tanks for boiler and cooling tower chemicals, including: boiler feed water, boiler water deaerator and water blowdown, cooling tower biocide, cooling tower corrosion inhibitor, cooling tower sulfuric acid, and cooling tower bleach.	TBD	FGTANKS

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.

EUWATERSWEETENING
EMISSION UNIT CONDITIONS

DESCRIPTION

Solution extraction process to recover sodium chloride (salt) and potassium chloride (potash) from the subsurface using a heated brine solution. An air stripper is used to remove hydrogen sulfide (H_2S) from the extracted brine.

When the brine is sour (60 ppmw or more H_2S), the air stripper exhaust gas is routed to a thermal oxidizer followed by a caustic scrubber to control H_2S emissions.

When the brine is sweet, the air stripper exhaust gas is routed to the caustic scrubber to control H_2S emissions.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Thermal oxidizer and caustic scrubber.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. H_2S	10 ppm by volume	24-hour rolling average	EUWATERSWEETENING	SC VI.2, VI.3, VI.4, VI.5, VI.6, VI.7, VI.8, VI.9, VI.10	R 336.1224 R 336.1225
2. SO_2	2.6 pph	Hourly	EUWATERSWEETENING	SC V.1, VI.2, VI.3, VI.4, VI.5, VI.8	R 336.1205 40 CFR 52.21 (c) & (d)
3. H_2S	3.3 pph	Hourly	EUWATERSWEETENING	SC V.1, VI.2, VI.3, VI.4, VI.5, VI.6, VI.7, VI.8	R 336.1224 R 336.1225

II. MATERIAL LIMIT(S)

1. The brine feed concentration shall not exceed a maximum of 400 ppm H_2S (by weight), or the H_2S brine feed concentration otherwise specified in the malfunction abatement plan (MAP), whichever is lower. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall only burn natural gas in the thermal oxidizer. **(40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUWATERSWEETENING unless the liquid flow rate and pH in the caustic scrubber are maintained as specified in the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

2. Unless the exception in SC III.3 applies, the permittee shall not operate EUWATERSWEETENING while the brine H_2S concentration is 60 ppm (by weight) or more unless the temperature and retention time in the thermal oxidizer are maintained as specified in the MAP. **(R 336.1224, R 336.1225, R 336.1910)**

3. The permittee may bypass the thermal oxidizer for up to 120 hours per 12-month rolling time period as determined at the end of each calendar month, while processing sour brine or for any amount of time while processing sweet brine in EUWATERSWEETENING. The brine shall be considered sweet when the H_2S concentration is less than 60 ppm (by weight). The brine shall be considered sour when the H_2S concentration is greater than or equal to 60 ppm (by weight). **(R 336.1224, R 336.1225, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUWATERSWEETENING unless the caustic scrubber is installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.1 and complying with the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

2. Except as allowed in SC III.3, the permittee shall not operate EUWATERSWEETENING unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.2 and complying with the MAP. **(R 336.1225, R 336.1910)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the liquid flow rate of the caustic scrubber. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the pH of the caustic scrubber. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the combustion chamber temperature of the thermal oxidizer during operation of the thermal oxidizer. **(R 336.1224, R 336.1225, R 336.1910)**

6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the H_2S concentration of the EUWATERSWEETENING brine feed. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910)**

7. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, acceptable to the AQD District Supervisor, a device to monitor the H_2S concentration of the EUWATERSWEETENING exhaust. **(R 336.1224, R 336.1225, R 336.1910)**

8. The maximum design heat input capacity for the EUWATERSWEETENING thermal oxidizer shall not exceed a maximum of 5.5 MMBTU/hr on a fuel heat input basis. **(R 336.1205, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Within 180 days after the commencement of trial operation of EUWATERSWEETENING, the permittee shall verify the SO_2 emission rates from EUWATERSWEETENING 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
SO_2	40 CFR Part 60, Appendix A

The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. Upon request of the AQD District Supervisor, the permittee shall verify the H_2S emission rates from EUWATERSWEETENING 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
H_2S	40 CFR Part 60, Appendix A

The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.1224, R 336.1225, 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 calculations/records 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 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21 (c)&(d))**

2. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the caustic scrubber liquid flow rate on a continuous basis during operation of EUWATERSWEETENING. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

3. The permittee shall record, in a manner satisfactory to the AQD District Supervisor, the caustic scrubber liquid flow rate on a daily basis during operation of EUWATERSWEETENING. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

4. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the pH of caustic scrubber on a continuous basis during operation of EUWATERSWEETENING. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

5. The permittee shall record, in a manner satisfactory to the AQD District Supervisor, the pH of caustic scrubber on a daily basis during operation of EUWATERSWEETENING. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

6. While EUWATERSWEETENING is venting to the thermal oxidizer, the permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the combustion chamber temperature of the thermal oxidizer on a continuous basis. **(R 336.1224, R 336.1225, R 336.1910)**

7. While EUWATERSWEETENING is venting to the thermal oxidizer, the permittee shall record, in a manner satisfactory to the AQD District Supervisor, the combustion chamber temperature of the thermal oxidizer on an hourly basis. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1910)**

8. The permittee shall monitor and record, in a manner satisfactory to the AQD District Supervisor, the H_2S concentration of the EUWATERSWEETENING brine feed at least once per hour during operation of EUWATERSWEETENING. Upon approval from the AQD District Supervisor, the permittee may reduce the frequency of monitoring of the H_2S concentration of the EUWATERSWEETENING brine feed. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910)**

9. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the H_2S concentration of the EUWATERSWEETENING exhaust at least once per hour during operation of EUWATERSWEETENING and shall use the monitor data for determining compliance with SC I.1. **(R 336.1224, R 336.1225, R 336.1910)**

10. The permittee shall record, in a manner satisfactory to the AQD District Supervisor, the H_2S concentration of the EUWATERSWEETENING exhaust on an hourly and 24-hour rolling average basis during operation of EUWATERSWEETENING. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1910)**

11. The permittee shall monitor and record, in a satisfactory manner, the hours of operation of EUWATERSWEETENING, for each month and 12-month rolling time period. The records shall list separately the hours of thermal oxidizer bypass mode operation while processing sweet brine, the hours of thermal oxidizer bypass mode operation while processing sour brine, and the corresponding H_2S concentration of the brine feed. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1910)**

12. The permittee shall keep all calibration data for the H_2S monitoring systems specified in SC IV.6 and IV.7 on file at the facility in a format acceptable to the AQD District Supervisor and make the data available to the Department upon request. **(R 336.1224, R 336.1225, 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 EUWATERSWEETENING. **(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. SVWATERSWEETENING	18	75	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall install and maintain warning signs and/or other measures as necessary to inform individuals of the presence of H_2S. **(R 336.1201(3))**

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

EUSALTDRYING
EMISSION UNIT CONDITIONS

DESCRIPTION

The sodium chloride (salt) brine feed from the water sweetening process goes through evaporators to remove water and is then processed in centrifuges to separate out the solids. The solids are placed in a natural gas-fired dryer for further moisture removal.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Cyclone followed by a wet scrubber

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.025 grains per dry standard cubic foot (gr/dscf)	Hourly	EUSALTDRYING	SC V.1, VI.3, VI.4	R 336.1331
2. PM10	4.3 pph	Hourly	EUSALTDRYING	SC V.1, VI.3, VI.4	R 336.1205 40 CFR 52.21(c) & (d)
3. PM2.5	4.3 pph	Hourly	EUSALTDRYING	SC V.1, VI.3, VI.4	R 336.1205 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in EUSALTDRYING. **(40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUSALTDRYING unless the liquid flow rate in the scrubber is maintained as specified in the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUSALTDRYING unless the cyclone and scrubber are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.1 and complying with the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the liquid flow rate of the scrubber. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

3. The maximum design heat input capacity for the EUSALTDRYING dryer shall not exceed a maximum of 41.6 MMBTU/hr on a fuel heat input basis. **(R 336.1205, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Within 180 days after the commencement of trial operation of EUSALTDRYING, the permittee shall verify the PM, PM10, and PM2.5 emission rates from EUSALTDRYING 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; 40 CFR Part 60, Appendix A

The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.1331, 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/records 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 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep records of the dates of calibration of the liquid flow rate measuring device for the wet scrubber in EUSALTDRYING on file at the facility in a format acceptable to the AQD District Supervisor and shall make them available to the Department upon request. **(R 336.1910)**

3. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the scrubber liquid flow rate on a continuous basis during operation of EUSALTDRYING. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

4. The permittee shall record, in a manner satisfactory to the AQD District Supervisor, the scrubber liquid flow rate on a daily basis during operation of EUSALTDRYING. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 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 EUSALTDRYING. **(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. SVSALTDRYING	54	225	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

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

EUSALTCOMPACTION
EMISSION UNIT CONDITIONS

DESCRIPTION

Sodium chloride (salt) crushing, handling, cooling, compaction, screening, polishing, and storage in an enclosed building. Some equipment is subject to NSPS OOO.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Particulate emissions are captured at various pickup points and vented to a cyclone followed by a baghouse for control.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.014 gr/dscf	Hourly	EUSALTCOMPACTION	SC V.2, VI.3, VI.4	R 336.1331 40 CFR 60.672(a) & (e)
2. PM10	3.8 pph	Hourly	EUSALTCOMPACTION	SC V.1, VI.3, VI.4	R 336.1205 40 CFR 52.21(c) & (d)
3. PM2.5	3.8 pph	Hourly	EUSALTCOMPACTION	SC V.1, VI.3, VI.4	R 336.1205 40 CFR 52.21(c) & (d)
4. Visible Emissions	7 percent opacity	6-minute average	Building enclosing EUSALTCOMPACTION	SC V.3, VI.2	40 CFR 60.672(b) & (e)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUSALTCOMPACTION unless the pressure drop across the baghouse is maintained as specified in the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUSALTCOMPACTION unless the cyclone and baghouse are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.1 and complying with the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the pressure drop across the baghouse. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Within 180 days after the commencement of trial operation of EUSALTCOMPACTION, the permittee shall verify the PM10 and PM2.5 emission rates from EUSALTCOMPACTION 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
PM10 / PM2.5	40 CFR Part 51, Appendix M; 40 CFR Part 60 Appendix A

The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUSALTCOMPACTION, the permittee shall verify the PM emission rate from EUSALTCOMPACTION, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and OOO. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. 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. 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 336.2001, R 336.2003, R 336.2004, 40 CFR 60.675(b), 40 CFR 60.676(f))**

3. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUSALTCOMPACTION, the permittee shall evaluate opacity from the building enclosing EUSALTCOMPACTION, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and OOO. The opacity shall be determined based upon the average of five 6-minute averages. Subsequent tests must be performed every five years thereafter. No less than 7 days prior to testing, the permittee shall submit a test plan to the AQD District Office. 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 336.2001, R 336.2003, R 336.2004, 40 CFR 60.672(b) & (e), 40 CFR 60.675(c), (d) & (e), 40 CFR 60.676(f))**

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/records 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 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall conduct quarterly 30-minute visible emission observations for the baghouse associated with EUSALTCOMPACTION (when operating), in accordance with federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subparts A and OOO. The test is successful if no visible emissions are observed. If visible emissions are observed, the owner or operator must initiate corrective action within 24 hours to return the baghouse to normal operation. In lieu of quarterly visible emission observations, the permittee may monitor the baghouse with a bag leak detection system in accordance with 40 CFR 60 Subpart OOO. Records of the inspections, including dates and any corrective actions taken, or records of the bag

leak detection system output (if applicable), system adjustments, details of detection system alarms, etc., shall be kept in a format acceptable to the AQD District Supervisor and shall be made available to the Department upon request. **(40 CFR 60.674(c) & (d), 40 CFR 60.676(b)(1) & (2))**

3. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the baghouse pressure drop on continuous basis during operation of EUSALTCOMPACTION. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

4. The permittee shall record, in a manner satisfactory to the AQD District Supervisor, the baghouse pressure drop on a daily basis during operation of EUSALTCOMPACTION. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 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 EUSALTCOMPACTION. **(R 336.1201(7)(a))**

2. Within 15 days of initial startup of EUSALTCOMPACTION, the permittee shall submit a notification of the actual date of startup of each Subpart OOO affected facility. The notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. **(40 CFR 60.676(i))**

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. SVSALTCOMPACTION	61	225	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for Nonmetallic Mineral Processing Plants as specified in 40 CFR Part 60 Subparts A and OOO, as they apply to EUSALTCOMPACTION. **(40 CFR Part 60 Subparts A & OOO)**

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

EUPOTASHDRYING
EMISSION UNIT CONDITIONS

DESCRIPTION

The potassium chloride (potash) brine feed from the water sweetening process goes through evaporators to remove water from the brine and is then processed in centrifuges to separate out the solids. The solids are placed in a natural gas-fired dryer for further moisture removal.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Cyclone followed by a wet scrubber

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.025 gr/dscf	Hourly	EUPOTASHDRYING	SC V.1, VI.3, VI.4	R 336.1331
2. PM10	4.6 pph	Hourly	EUPOTASHDRYING	SC V.1, VI.3, VI.4	R 336.1205 40 CFR 52.21(c) & (d)
3. PM2.5	4.6 pph	Hourly	EUPOTASHDRYING	SC V.1, VI.3, VI.4	R 336.1205 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in EUPOTASHDRYING. **(40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUPOTASHDRYING unless the liquid flow rate in the scrubber is maintained as specified in the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUPOTASHDRYING unless the cyclone and scrubber are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.1 and complying with the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the liquid flow rate of the scrubber. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

3. The maximum design heat input capacity for the EUPOTASHDRYING dryer shall not exceed a maximum of 44.2 MMBTU/hr on a fuel heat input basis. **(R 336.1205, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Within 180 days after the commencement of trial operation of EUPOTASHDRYING, the permittee shall verify the PM, PM10, and PM2.5 emission rates from EUPOTASHDRYING 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; 40 CFR Part 60, Appendix A

The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.1331, 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/records 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 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep records of the dates of calibration of the liquid flow rate measuring device for the wet scrubber in EUPOTASHDRYING on file at the facility in a format acceptable to the AQD District Supervisor and shall make them available to the Department upon request. **(R 336.1910)**

3. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the scrubber liquid flow rate on a continuous basis during operation of EUPOTASHDRYING. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

4. The permittee shall record. in a manner satisfactory to the AQD District Supervisor, the scrubber liquid flow rate on a daily basis during operation of EUPOTASHDRYING. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 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 EUPOTASHDRYING. **(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. SVPOTASHDRYING	54	225	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

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

EUPOTASHCOMPACTION
EMISSION UNIT CONDITIONS

DESCRIPTION

Potassium chloride (potash) crushing, handling, cooling, compaction, screening, polishing, and storage in an enclosed building.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Particulate emissions are captured at various pickup points and vented to a cyclone followed by a baghouse for control.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.010 gr/dscf	Hourly	EUPOTASHCOMPACTION	SC V.1, VI.2, VI.3	R 336.1331
2. PM10	6.1 pph	Hourly	EUPOTASHCOMPACTION	SC V.1, VI.2, VI.3	R 336.1205 40 CFR 52.21(c) & (d)
3. PM2.5	6.1 pph	Hourly	EUPOTASHCOMPACTION	SC V.1, VI.2, VI.3	R 336.1205 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUPOTASHCOMPACTION unless the pressure drop across the baghouse is maintained as specified in the MAP. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUPOTASHCOMPACTION unless the cyclone and baghouse are installed, maintained, and operated in a satisfactory manner acceptable to the AQD District Supervisor, which includes meeting the requirements of SC III.1 and complying with the MAP. **(R 336.1205, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to continuously monitor the pressure drop across the baghouse. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Within 180 days after the commencement of trial operation of EUPOTASHCOMPACTION, the permittee shall verify the PM, PM10 and PM2.5 emission rates from EUPOTASHCOMPACTION 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; 40 CFR Part 60, Appendix

The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.1331, 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/records 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 336.1205, R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor, in a manner satisfactory to the AQD District Supervisor, the baghouse pressure drop on continuous basis during operation of EUPOTASHCOMPACTION. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

3. The permittee shall record, in a manner satisfactory to the AQD District Supervisor, the baghouse pressure drop on a daily basis during operation of EUPOTASHCOMPACTION. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 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 EUPOTASHCOMPACTION. **(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. EUPOTASHCOMPACTION	86	225	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

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

EUBULKPOTASHLOAD
EMISSION UNIT CONDITIONS

DESCRIPTION

Potash bulk product truck loading located in an enclosed building.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUBULKPOTASHLOAD unless the equipment is located in an enclosed building. **(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))**

NA

VI. MONITORING/RECORDKEEPING

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

NA

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 EUBULKPOTASHLOAD. **(R 336.1201(7)(a))**

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).

EUSPACEHEATERS
EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas-fired space heaters used for facility heating, ventilation, and cooling systems. Total heat input is 28 MMBTU/hr.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in EUSPACEHEATERS. **(40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The total heat input capacity of EUSPACEHEATERS shall not exceed 28 MMBTU/hr. **(R 336.1205, 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))**

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).

EUCOOLINGTOWER
EMISSION UNIT CONDITIONS

DESCRIPTION

Four cell indirect cooling tower with drift eliminators.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Drift eliminators

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUCOOLINGTOWER with drift eliminators. **(R 336.1205, 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))**

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. SVCOOL1	300	35	40 CFR 52.21(c) & (d)
2. SVCOOL2	300	35	40 CFR 52.21(c) & (d)
3. SVCOOL3	300	35	40 CFR 52.21(c) & (d)
4. SVCOOL4	300	35	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
FGBOILERS	Two (2) natural gas-fired boilers that produce steam for process operations.	EUBOILER1, EUBOILER2
FGBULKSALTLOAD	Two (2) bulk salt loadout areas for loading salt into trucks	EUBULKSALTLOAD1, EUBULKSALTLOAD2
FGRICE	A diesel-fired emergency generator engine rated up to 6,000 HP and a diesel-fired emergency fire pump engine rated up to 71 HP.	EUEMERGRICE, EUFIRERICE
FGTANKS	Liquid storage tanks equipped with breather vents and submerged fill piping as necessary.	EUDIESELTANK1, EUDIESELTANK2, EUPROCESSTANKS, EUACIDTANK, EUACIDCIRCTK, EUCITRICTKS, EUBLR-CTTANKS

FGBOILERS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two (2) natural gas-fired boilers that produce steam for process operations.

Emission Unit: EUBOILER1, EUBOILER2

POLLUTION CONTROL EQUIPMENT

Ultra Low NO_x burners

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in FGBOILERS. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d)))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The heat input capacity of each boiler in FGBOILERS shall not exceed a maximum of 99.9 MMBTU/hr. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Dc)**

2. The permittee shall install a device to continuously monitor and record the natural gas usage rate for each emission unit in FGBOILERS. **(40 CFR 60.48c(g))**

3. The permittee shall not operate any emission unit in FGBOILERS unless the associated ultra low NO_x burner is installed and operating properly. **(R 336.1205, 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))**

NA

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/records 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. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor and record the natural gas usage rate for each emission unit in FGBOILERS on a monthly basis. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(40 CFR 60.48c(g))**

VII. REPORTING

1. The permittee shall submit written notification of the date of construction of each boiler in FGBOILERS to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within 30 days after construction commences, as specified in 40 CFR 60.7(a)(1). **(40 CFR 60.7(a)(1))**

2. The permittee shall submit written notification of the actual date of initial startup for each boiler in FGBOILERS as provided by the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. Each notification shall include:
   a) The design heat input capacity and identification of fuel to be combusted.
   b) The annual capacity factor at which the permittee anticipates operating based on natural gas usage.
   The permittee shall submit these notifications to the AQD District Supervisor within 15 days after initial startup occurs. **(40 CFR 60.7(a)(3), 40 CFR 60.48c(a))**

3. 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 each boiler in FGBOILERS. **(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. SVBOILER1	42	50	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVBOILER2	42	50	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc, as they apply to each boiler in FGBOILERS. **(40 CFR Part 60 Subparts A & Dc)**

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

FGBULKSALTLOAD
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Salt bulk product truck loading located in an enclosed building, subject to NSPS OOO.

Emission Unit: EUBULKSALTLOAD1, EUBULKSALTLOAD2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Visible Emissions	7 percent opacity	6-minute average	EUBULKSALTLOAD1	SC V.1	40 CFR 60.672(b) & (e)
2. Visible Emissions	7 percent opacity	6-minute average	EUBULKSALTLOAD2	SC V.2	40 CFR 60.672(b) & (e)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUBULKSALTLOAD1 and EUBULKSALTLOAD2 unless the associated equipment is located in an enclosed building. **(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 EUBULKSALTLOAD1, the permittee shall evaluate opacity from EUBULKSALTLOAD1, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and OOO. The opacity shall be determined based upon the average of five 6-minute averages. Subsequent tests must be performed every five years thereafter. No less than 7 days prior to testing, the permittee shall submit a test plan to the AQD District Office. 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 336.2001, R 336.2003, R 336.2004, 40 CFR 60.672(b) & (e), 40 CFR 60.675(c), (d) & (e), 40 CFR 60.676(f))**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUBULKSALTLOAD2, the permittee shall evaluate opacity from EUBULKSALTLOAD2, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and OOO. The opacity shall be determined based upon the average of five 6-minute averages. Subsequent tests must be performed every five years thereafter. No less than 7 days prior to testing, the permittee shall submit a test plan to the AQD District Office. 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 336.2001, R 336.2003, R 336.2004, 40 CFR 60.672(b) & (e), 40 CFR 60.675(c), (d) & (e), 40 CFR 60.676(f))**

VI. MONITORING/RECORDKEEPING

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

NA

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 EUBULKSALTLOAD1. **(R 336.1201(7)(a))**

2. 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 EUBULKSALTLOAD2. **(R 336.1201(7)(a))**

3. Within 15 days of initial startup of EUBULKSALTLOAD1, the permittee shall submit a notification of the actual date of startup of each Subpart OOO affected facility. The notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. **(40 CFR 60.676(i))**

4. Within 15 days of initial startup of EUBULKSALTLOAD2, the permittee shall submit a notification of the actual date of startup of each Subpart OOO affected facility. The notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. **(40 CFR 60.676(i))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for Nonmetallic Mineral Processing Plants as specified in 40 CFR Part 60 Subparts A and OOO, as they apply to EUBULKSALTLOAD1 and EUBULKSALTLOAD2. **(40 CFR Part 60 Subparts A & OOO)**

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

FGRICE
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A diesel-fired emergency generator engine rated up to 6,000 HP and a diesel-fired emergency fire pump engine rated up to 71 HP.

Emission Unit: EUEMERGRICE, EUFIRERICE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr[A]	Hourly	EUEMERGRICE	VI.2, VI.3	40 CFR 52.21(c) & (d) 40 CFR 60.4205(b) 40 CFR Part 1039, Appendix I, Table 2
2. CO	3.5 g/kW-hr[A]	Hourly	EUEMERGRICE	VI.2, VI.3	40 CFR 60.4205(b) 40 CFR Part 1039, Appendix I, 2
3. PM	0.20 g/kW-hr[A]	Hourly	EUEMERGRICE	VI.2, VI.3	40 CFR 60.4205(b) 40 CFR Part 1039, Appendix I, 2
4. PM10	2.6 lb/hr	Hourly	EUEMERGRICE	SC V.2, VI.2, VI.3	R 336.1205 40 CFR 52.21 (c) & (d)
5. PM2.5	2.6 lb/hr	Hourly	EUEMERGRICE	SC V.2, VI.2, VI.3	R 336.1205 40 CFR 52.21 (c) & (d)
6. NMHC + NOx	3.5 g/hp-hr[A]	Hourly	EUFIRERICE	VI.2, VI.3	40 CFR 52.21 (c) & (d) 40 CFR 60.4205(c) Table 4 of 40 CFR Part 60, Subpart IIII
7. CO	3.7 g/hp-hr[A]	Hourly	EUFIRERICE	VI.2, VI.3	40 CFR 60.4205(c) Table 4 of 40 CFR Part 60, Subpart IIII
8. PM	0.30 g/hp-hr[A]	Hourly	EUFIRERICE	VI.2, VI.3	40 CFR 60.4205(c) Table 4 of 40 CFR Part 60, Subpart IIII
9. PM10	0.16 lb/hr	Hourly	EUFIRERICE	SC V.2, VI.2, VI.3	R 336.1205 40 CFR 52.21 (c) & (d)
10. PM2.5	0.16 lb/hr	Hourly	EUFIRERICE	SC V.2, VI.2, VI.3	R 336.1205 40 CFR 52.21 (c) & (d)

[A] These emission limits are for certified engines; if testing becomes required to demonstrate compliance, then the tested values must be compared to the Not to Exceed (NTE) requirements determined through 40 CFR 60.4212(c), for the NSPS.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in FGRICE with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(R 336.1205, R 336.1402(1), 40 CFR 60.4207(b), 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUEMERGRICE or EUFIRERICE for more than 500 hours per engine per year on a 12-month rolling time period basis as determined at the end of each calendar month. These hours include the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1205, R 336.1225, 40 CFR 52.21 (c) & (d))**

2. The permittee may operate each engine in FGRICE for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**

3. The permittee may operate each engine in FGRICE up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f)(3))**

4. The permittee shall not operate each engine in FGRICE for more than 4 hours per day, except during emergency conditions and required stack testing in SC V.1 and V.2. **(40 CFR 52.21 (c) & (d))**

5. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine in FGRICE:

   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,

   b) Change only those emission-related settings that are permitted by the manufacturer, and

   c) Meet the requirements as specified in 40 CFR 89, 94 and/or 1068, as they apply to the engine.

   If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. **(40 CFR 60.4211(a), (b), (c), & (f))**

6. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each of such engine in FGRICE and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4211(g)(1) & (3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGRICE with a non-resettable hours meter to track the operating hours. **(R 336.1205, R 336.1225, 40 CFR 52.21 (c) & (d), 40 CFR 60.4209)**

2. The maximum rated power output of EUEMERGRICE shall not exceed 6,000 HP, as certified by the equipment manufacturer. **(R 336.1205, 40 CFR 60.4205(b), 40 CFR 60.4202(b)(2))**

3. The maximum rated power output of EUFIRERICE shall not exceed 71 HP, as certified by the equipment manufacturer. **(R 336.1205, R 336.1225, 40 CFR 60.4205(c))**

V. TESTING/SAMPLING

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

1. If the any engine in FGRICE is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

   a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

   b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212.

   c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years thereafter, whichever comes first, to demonstrate compliance with the applicable emission standards.

   No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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. **(40 CFR 60.4211(g)(1)& (3), 40 CFR 60.4212)**

2. Upon request of the AQD District Supervisor, the permittee shall verify the PM10 and/or PM2.5 emission rates from one or both the engines in FGRICE 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
PM10 / PM2.5	40 CFR Part 51, Appendix M

   The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. 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 336.2001, 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/records 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. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep, in a satisfactory manner, the following records for each engine in FGRICE:
   a) For each certified engine: The permittee shall keep records of the manufacturer certification documentation.
   b) For each uncertified engine: The permittee shall keep records of testing required in SC V.1.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 52.21(c) & (d), 40 CFR 60.4211)**

3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FGRICE:
   a) For each certified engine: The permittee shall keep records demonstrating that the engine has been maintained according to the manufacturer's emission-related written instructions, as specified in SC III.5.
   b) For each uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.5, and maintenance activities.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 52.21(c) & (d), 40 CFR 60.4211)**

4. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for each engine in FGRICE, on a daily, monthly, calendar year, and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of each engine in FGRICE, including what classified the operation as emergency. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d), 40 CFR 60.4211, 40 CFR 60.4214)**

5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGRICE, demonstrating that the fuel meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1402(1), 40 CFR 60.4207(b))**

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 either engine in FGRICE. **(R 336.1201(7)(a))**

2. The permittee shall submit a notification specifying whether each engine of FGRICE will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR 60.4214(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. SVEMERGRICE	40	45	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVFIRERICE	4	10	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for Stationary Compression Ignition Internal Combustion Engines as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to each engine of FGRICE. **(40 CFR Part 60, Subparts A & IIII, 40 CFR 63.6590(c))**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines, as they apply to each engine of FGRICE. **(40 CFR Part 63, Subparts A & ZZZZ, 40 CFR 63.6595)**

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

FGTANKS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Liquid storage tanks equipped with breather vents and submerged fill piping as necessary.

Emission Unit: EUDIESELTANK1, EUDIESELTANK2, EUPROCESSTANKS, EUACIDTANK, EUACIDCIRCTK, EUCITRICTKS, EUBLR-CTTANKS

POLLUTION CONTROL EQUIPMENT

Breather vents and submerged fill piping as necessary.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each tank in FGTANKS containing volatile organic compounds with breather vents and submerged fill piping. **(R 336.1702(a))**

2. The permittee shall equip and maintain each tank in FGTANKS containing acids with breather vents and submerged fill piping. **(R 336.1224, R 336.1225)**

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).

FGFACILITY CONDITIONS

DESCRIPTION

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

POLLUTION CONTROL EQUIPMENT

See emission unit and flexible group conditions

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM10	88 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205
2. PM2.5	88 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUWATERSWEETENING, EUSALTDRYING, EUSALTCOMPACTION, EUPOTASHDRYING, or EUPOTASHCOMPACTION unless a MAP as described in Rule 911(2), for each associated emission control device, has been submitted prior to startup of the respective emission unit (EUWATERSWEETENING, EUSALTDRYING, EUSALTCOMPACTION, EUPOTASHDRYING, or EUPOTASHCOMPACTION), 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.

   d) A description of how emissions will be minimized during all startups, shutdowns, and malfunctions.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall 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 336.1205)**

2. Beginning at the commencement of trial operation of FGFACILITY, the permittee shall keep the following information source-wide on a monthly basis:
   a) The PM10 and PM2.5 emission factors of each piece of equipment. (Emission factors are to be based on monitoring and testing at the facility, manufacturer certification, AP-42, or other as approved by the AQD District Supervisor.)
   b) PM10 and PM2.5 emission calculations determining the monthly emission rate in tons per calendar month.
   c) PM10 and PM2.5 emission calculations determining the cumulative emission rate of PM10 and PM2.5 during the first 12 months, and the annual emission rate of each thereafter in tons per 12-month rolling time period as determined at the end of each calendar month.

   The permittee shall keep the records 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. **(R 336.1205)**

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).