

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

March 15, 2022

**PERMIT TO INSTALL**  
167-14B

**ISSUED TO**  
Cargill Salt, Inc.

**LOCATED AT**  
916 South Riverside Avenue  
St. Clair, Michigan 48079

**IN THE COUNTY OF**  
St. Clair

**STATE REGISTRATION NUMBER**  
A6240

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: <b>February 15, 2022</b>	
DATE PERMIT TO INSTALL APPROVED: <b>March 15, 2022</b>	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

## PERMIT TO INSTALL

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## COMMON ACRONYMS

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

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

### POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO <sub>2</sub> 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 <sub>2</sub> S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO <sub>x</sub>	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 <sub>2</sub>	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
EUBOILER15	A natural gas-fired boiler, rated at 248.5 MMBtu per hour heat input with low NO <sub>x</sub> burners.	2015	N/A
EUSCREENING	The fourth and fifth floor screening and grading operations are comprised of numerous conveyors, screens, one nugget presses and several bagging machines. All equipment is operated indoors within its own enclosure and /or is ducted to a common wet scrubber.	1940	FGOOO
EUDURACUBE	The Duracube system is used to produce water-softening pellets. The process begins with sodium chloride being added to the surge bin. Following the surge bin, the mixture is sent to a compactor, product bin and packaging system.	1971	N/A
EUPRETZEL	A series of equipment used to process salt. Equipment includes grinders, screens, storage bins, feeders, conveyors, etc. All equipment is operated indoors within its own enclosure and/or is ducted to the auxiliary third floor wet scrubber, which is located on the west side of building #5.	1937	FGOOO
EUDRYER	A 16.5 MMBtu/hr natural gas-fired fluidized bed salt dryer rated at an input of 30 tons of Alberger salt per hour and controlled by a cyclone and a venturi wet scrubber.	5-17-13	N/A
EUMOONSHOT	Salt crusher, weight belts, slide gates, conveyors, sifters, screeners, and storage bins housed in the Moonshot Building. Dry salt product is conveyed from the fluidized bed dryer to the Moonshot Building and mechanically processed into cut 1, cut 2, cut 3 and cut 4 salt products. Salt additives are applied to the salt products prior to salt product storage, packaging, and handling. The screened salt is routed back to Building 5 for final packaging and handling. Emissions from the Moonshot Building are controlled by a wet scrubber.	TBD	FGOOO
EUSPACEHEAT	Natural gas-fired building space heating equipment to heat the Moonshot Building.	TBD	N/A

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.

**EUBOILER15  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A natural gas-fired boiler, rated at 248.5 MMBtu per hour heat input with low NO<sub>x</sub> burners.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Low NO<sub>x</sub> burners.

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit**</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. NO <sub>x</sub>	8.95 pph	30-day rolling average time period	EUBOILER15	SC VI.2	R 336.1205(1)(a) & (b)
2. NO <sub>x</sub>	0.20 lb/MMBtu heat input	30-day rolling average time period	EUBOILER15	SC VI.2	40 CFR 60.44b(a)(1)

\*\*All limits include start-up, shutdown, and malfunction conditions.

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas in EUBOILER15. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subparts A & Db)**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUBOILER15 unless a malfunction abatement plan (MAP) as described in R 336.1911(2), for EUBOILER15 operation, is implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1702(a), R 336.1911, 40 CFR 52.21(c) & (d))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The heat input capacity of EUBOILER15 shall not exceed a maximum of 248.5 MMBTU per hour. **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Db)**
2. The permittee shall not operate EUBOILER15 unless the low NO<sub>x</sub> burners are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a) & (b), R 336.1910, 40 CFR 52.21(c) & (d))**
3. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, a device to monitor and record the calendar daily natural gas usage rate when in operation for EUBOILER15. **(40 CFR 60.49b(d))**
4. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, devices to monitor and record the NO<sub>x</sub> emissions, and oxygen (O<sub>2</sub>) (or carbon dioxide (CO<sub>2</sub>)) content of the exhaust gas from EUBOILER15 on a continuous basis. **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR 60.48b(b))**

#### **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(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Db)**
2. The permittee shall continuously monitor and record, in a manner acceptable to the AQD District Supervisor, the NO<sub>x</sub> emissions and the O<sub>2</sub> (or CO<sub>2</sub>) content from the exhaust gas from EUBOILER15. The permittee shall operate the NO<sub>x</sub> Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix A and shall use the CEMS data for determining compliance with SC I.1 and SC I.2. **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Db 60.48b(b))**
3. The permittee shall keep daily natural gas usage records, in a format acceptable to the AQD District Supervisor. These records shall also verify that only pipeline quality natural gas is burned in EUBOILER15. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), 40 CFR 60.49b(d)(1))**
4. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
  - a) Compliance tests and any testing required under the special conditions of this permit.
  - b) Monitoring data.
  - c) Verification of heat input capacity required to show compliance with SC IV.1.
  - d) Identification, type and the amounts of fuel combusted in EUBOILER15 on a calendar day basis.
  - e) All records required by 40 CFR 60.7 and 60.49b.
  - f) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.7(f), 40 CFR Part 60 Subpart Db)**

#### **VII. REPORTING**

1. The permittee shall submit all reports required by the federal Standards of Performance for New Stationary Sources, 40 CFR 60.49b, as applicable. The permittee shall submit these reports to the AQD District Supervisor within the time frames specified in 40 CFR 60.49b and/or 40 CFR 60.7. **(40 CFR 60.7, 40 CFR 60.49b(h) & (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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-BOILER15	63	70	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Db, as they apply to EU-BOILER15. **(40 CFR Part 60 Subparts A & Db)**
2. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and JJJJJJ, as they apply to EUBOILER15. **(40 CFR Part 63 Subparts A & JJJJJJ)**

**Footnotes:**

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

**EUDURACUBE  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

The Duracube system is used to produce water-softening pellets. The process begins with sodium chloride being added to the surge bin. Following the surge bin, the mixture is sent to a compactor, product bin and packaging system.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Wet Scrubber

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.10 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis.	Test Protocol*	EUDURACUBE	40 CFR, part 60, Appendix A, Method 5 or other acceptable reference methods approved by the AQD	R 336.1331(1)(a)

\*Test Protocol shall specify averaging time.

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUDURACUBE unless a malfunction abatement plan (MAP) as described in R 336.1911(2), for EUDURACUBE operation, is implemented and maintained. **(R 336.1911)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EUDURACUBE unless the scrubber is installed and operating properly. Proper operation of the wet scrubber is defined as a pressure drop range between 2.4 and 4.2 inches of water column and a scrubber liquid flow rate of at least 37 gallons per minute. Alternatively, the permittee may use the values determined during the most recent performance test that demonstrated the emission unit was in compliance with the applicable emission limit. **(R 336.1910)**

**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 emission rates from EUDURACUBE by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

<b>Pollutant</b>	<b>Test Method Reference</b>
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1331, R 336.1910, 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 perform a non-certified 1-minute Method 22 visible emission observation for EUDURACUBE once every seven days during routine operations. The permittee shall initiate corrective action upon observation of visible emissions exceeding 20 percent opacity and shall maintain a written record of each observation and corrective action. **(R 336.1201(3))**
2. The permittee shall install and maintain a device for the measurement of the pressure drop across the wet scrubber. The permittee shall record and maintain a daily record of the pressure drop across the wet scrubber in inches of water column. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1201(3))**
3. The permittee shall install and maintain a device for the measurement of the scrubbing liquid flow rate to the wet scrubber. The permittee shall record and maintain a daily record of the scrubbing liquid flow rate to the wet scrubber in gallons per minute (GPM). The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1201(3))**

**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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV008	25	42	40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**EUDRYER  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A 16.5 MMBtu/hr natural gas-fired fluidized bed salt dryer rated at an input of 30 tons of Alberger salt per hour and controlled by a cyclone and a venturi wet scrubber.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Cyclone and a venturi wet scrubber

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	3.0 pph	Test Protocol*	EUDRYER	GC 13	R 336.1331(1)(c)
2. PM10	0.75 pph	Test Protocol*	EUDRYER	GC 13	40 CFR 52.21(c) & (d)
3. PM2.5	0.75 pph	Test Protocol*	EUDRYER	GC 13	R 336.1205(3)

\*Test Protocol shall specify averaging time.

4. Visible emissions from EUDRYER shall not exceed a six-minute average of 20 percent opacity, except for one (1) 6-minute average per hour of not more than 27% opacity, as specified in R 336.1301(a). **(R 336.1301(a), R 336.1331, 40 CFR 52.21(c) & (d))**

**II. MATERIAL LIMIT(S)**

1. The permittee shall not process more than an average of 30 tons of Alberger salt through EUDRYER per hour on a daily basis. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**
2. The permittee shall burn only natural gas in EUDRYER. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUDRYER unless a malfunction abatement plan (MAP) as described in R 336.1911(2), for the cyclone and wet scrubber, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EUDRYER unless the cyclone is installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate EUDRYER unless the wet scrubber is installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the pressure drop for the venturi wet scrubber associated with EUDRYER on a daily basis. A satisfactory manner is defined as a pressure drop range between 4.0 and 8.0 inches of water column and a scrubber liquid flow rate of at least 170 gallons per minute. **(R 336.1205, R 336.1225, R 336.1301, 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))**

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, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall keep the following information on a daily basis for EUDRYER:
  - a. A record of hours of operation.
  - b. Hourly tons of salt through EUDRYER based upon the daily Alberger salt throughput divided by the number of hours EUDRYER operated during the calendar day.

The permittee shall monitor, record, and keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

3. The permittee shall verify the presence of visible emissions by taking six-minute visible emission readings for EUDRYER a minimum of once per calendar day. A certified reader shall take each visible emission reading during routine operating conditions. If the permittee observes visible emissions in excess of SC I.4, the permittee shall follow the procedures as laid out in the malfunction abatement plan. Daily VE readings shall be done until no visible emissions have been observed for a calendar quarter. Thereafter, the permittee shall monitor visible emissions from EUDRYER a minimum of once per calendar week. If during the weekly monitoring the permittee observes visible emissions in excess of SC I.4, the permittee shall take daily VE readings for the next two weeks. The permittee shall submit any request for a change in the monitoring frequency to the AQD District Supervisor for review and approval. **(R 336.1301(a), R 336.1303, R 336.1331, 40 CFR 52.21(c) & (d))**
4. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for EUDRYER. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1303, R 336.1331, 40 CFR 52.21(c) & (d))**
5. The permittee shall monitor and record, in a satisfactory manner, the pressure drop for the wet scrubber associated with EUDRYER on a daily basis. If the pressure drop deviates from the range specified in SC IV.3, the permittee shall follow the procedures as laid out in the malfunction abatement plan. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
6. The permittee shall monitor and record, in a satisfactory manner, the scrubbing liquid flow rate to the wet scrubber associated with EUDRYER on a daily basis. If the flow rate falls below the minimum specified in SC IV.3, the permittee shall follow the procedures as laid out in the malfunction abatement plan. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

7. The permittee shall keep, in a satisfactory manner, all daily pressure drop records for the wet scrubber associated with EUDRYER, as required by SC VI.5 on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
8. The permittee shall keep, in a satisfactory manner, all daily scrubbing liquid flow rate records for the wet scrubber associated with EUDRYER, as required by SC VI.6 on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVDRYERSCRUBBER	40	24	40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

<b>EUSPACEHEAT EMISSION UNIT CONDITIONS</b>
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**DESCRIPTION**

Natural gas-fired building space heating equipment to heat the Moonshot Building.

**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 EUSPACEHEAT. **(40 CFR 52.21(c) & (d))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The total heat input capacity of EUSPACEHEAT shall not exceed 5 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:**

<sup>1</sup> 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.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FG000	Emission units subject to 40 CFR Part 60 Subpart OOO.	EUPRETZEL, EUSCREENING, EUMOONSHOT

**FGOOO**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Emission units subject to 40 CFR Part 60 Subpart OOO.

**Emission Unit:** EUPRETZEL, EUSCREENING, EUMOONSHOT

**POLLUTION CONTROL EQUIPMENT**

EUSCREENING wet scrubber (Building 5, 4<sup>th</sup> Floor Wet Scrubber)  
 EUPRETZEL wet scrubber (Building 5, 3<sup>rd</sup> Floor Wet Scrubber)  
 EUMOONSHOT North wet scrubber (Building 68, 5<sup>th</sup> Floor North Wet Scrubber)  
 EUMOONSHOT South wet scrubber (Building 68, 5<sup>th</sup> Floor South Wet Scrubber)

Wet scrubbers

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.05 grams per dry standard cubic meter (0.022 grains per dry standard cubic foot)	Test Protocol*	EUSCREENING equipment ducted to Building 5, 4 <sup>th</sup> Floor Wet Scrubber	SC V.1	40 CFR 60.672(a)
2. PM	0.05 grams per dry standard cubic meter (0.022 grains per dry standard cubic foot)	Hourly	EUPRETZEL equipment ducted to Building 5, 3 <sup>rd</sup> Floor Wet Scrubber	SC V.1	40 CFR 60.672(a)
3. PM	3.9 pph	Test Protocol*	Equipment in EUSCREENING ducted to Building 5, 4 <sup>th</sup> Floor Wet Scrubber	SC V.1	R 336.1201(3)
4. PM	5.2 pph	Test Protocol*	Equipment in EUPRETZEL ducted to Building 5, 3 <sup>rd</sup> Floor Wet Scrubber	SC V.1	R 336.1201(3)
5. VE	7% opacity	6-minute average.	Building that encloses EUSCREENING and EUPRETZEL.	SC V.2	R 336.1205, R 336.1301, 40 CFR 60.672(e)(1)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
6. VE	10% opacity	6-minute average.	Grinding mills <sup>a</sup> , screening operations, buckets, elevators, transfer points on belts, conveyors, bagging, storage bins, enclosed truck/rail car loading. All equipment without an emission capture system, and fugitive emissions escaping capture systems in FGOOO. This limit only applies to equipment that is not enclosed within a building subject to the emission limits in 40 CFR 60.672(e).	SC V.3	40 CFR 60.672(b)
7. VE	15% opacity	6-minute average.	Uncontrolled crushers <sup>b</sup> in FGOOO that are not enclosed within a building subject to the emission limits in 40 CFR 60.672(e)	SC V.3	40 CFR 60.672(b)
8. PM	0.014 grains per dry standard cubic foot	Hourly	EUMOONSHOT equipment ducted to Building 68, 5 <sup>th</sup> Floor North Wet Scrubber and Building 68, 5 <sup>th</sup> Floor South Wet Scrubber	SC V.4	R 336.1331, 40 CFR 60.672(a) & (e)
9. PM10	1.4 pph	Hourly	EUMOONSHOT equipment ducted to Building 68, 5 <sup>th</sup> Floor North Wet Scrubber and Building 68, 5 <sup>th</sup> Floor South Wet Scrubber combined	SC V.5	R 336.1205, 40 CFR 52.21(c) & (d)
10. PM2.5	1.4 pph	Hourly	EUMOONSHOT equipment ducted to Building 68, 5 <sup>th</sup> Floor North Wet Scrubber and Building 68, 5 <sup>th</sup> Floor South Wet Scrubber combined	SC V.5	R 336.1205, 40 CFR 52.21(c) & (d)
11. VE	7% opacity	6-minute average.	Building that encloses EUMOONSHOT	SC V.6	R 336.1205, R 336.1301, 40 CFR 60.672(e)(1)
12. PM2.5	17.1 tpy <sup>c</sup>	12-month rolling time period as determined at the end of each calendar month	EUMOONSHOT and EUSCREENING combined	SC VI.5	R 336.1205
13. PM10	17.1 tpy <sup>c</sup>	12-month rolling time period as determined at the end of each calendar month	EUMOONSHOT and EUSCREENING combined	SC VI.5	R 336.1205

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
*Test Protocol shall specify averaging time <sup>a</sup> Grinding mills are defined as machines used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used. <sup>b</sup> Crushers are defined as machines used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor. <sup>c</sup> This limit no longer applies after the permittee permanently ceases operation of EUSCREENING as required by SC IX.3.					

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Salt	245,000 tons of salt through each emission unit.	12-month rolling time period as determined at the end of each calendar month.	EUSCREENING, EUPRETZEL	SC VI.2	R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

- The permittee shall not operate EUSCREENING, EUMOONSHOT, or EUPRETZEL unless the associated wet scrubber is installed and operating properly. Proper operation of the wet scrubber for EUPRETZEL is defined as a pressure drop range between 4.2 and 7.2 inches of water column and a scrubbing liquid flow rate of at least 36 gallons per minute. Proper operation of the wet scrubber for EUSCREENING is defined as a pressure drop range between 4.7 and 8.8 inches of water column and a scrubbing liquid flow rate of at least 36 gallons per minute. Proper operation of each wet scrubber for EUMOONSHOT is defined as a pressure drop range between 18 and 24 inches of water column and a scrubbing liquid flow rate between 225 and 350 gallons per minute per scrubber. Alternatively, the permittee may use the values determined during the most recent performance test that demonstrated each emission unit was in compliance with the applicable emission limit. The emission test shall be provided to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 60.676(d))**
- In the event of a malfunction of a wet scrubber the permittee shall immediately shut down the wet scrubber collection fan and the emissions shall be vented only inside the closed building. **(R 336.1910)**
- The permittee shall not operate EUPRETZEL or EUSCREENING unless a malfunction abatement plan (MAP) as described in R 336.1911(2), for each associated wet scrubber, is implemented and maintained. The permittee shall submit, implement, and maintain a MAP for the EUMOONSHOT wet scrubbers within 180 days of commencement of trial operation of EUMOONSHOT. 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 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall install and maintain a device for the measurement of the pressure loss across each wet scrubber portion of EUSCREENING, EUMOONSHOT, and EUPRETZEL. The monitoring device shall be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions. The manufacturer's calibration instructions shall be kept on file and made available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 40 CFR 60.674(a)(1))**
2. The permittee shall install and maintain a device for the measurement of the scrubbing liquid flow rate to the wet scrubber portion of EUSCREENING, EUMOONSHOT, and EUPRETZEL. The monitoring device shall be certified by the manufacturer to be accurate within  $\pm 5$  percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 40 CFR 60.674(a)(2))**
3. Within 30-days of installation of EUMOONSHOT, the permittee shall label each wet scrubber control device and each pressure loss monitoring device with the emission unit names specified in this permit, in a manner satisfactory to the AQD District Supervisor. **(R336.1201)**

#### **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 emission rates from EUPRETZEL and/or EUSCREENING 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.

<b>Pollutant</b>	<b>Test Method Reference</b>
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules

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 336.2001, R 336.2003, R 336.2004, 40 CFR 60 Subpart 000)**

2. Upon request of the AQD District Supervisor, the permittee shall evaluate opacity from the building enclosing EUSCREENING (prior to permanent shutdown) and/or EUPRETZEL, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and 000. Testing shall be performed using Method 9 or an approved EPA Method listed in 40 CFR Part 60 Subparts A and 000. The opacity shall be determined based upon the average of five 6-minute averages. 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 336.1301, R 336.2001, R 336.2003, R 336.2004, 40 CFR 60 Subpart 000)**
3. Upon request of the AQD District Supervisor, the permittee shall evaluate opacity from equipment that is not enclosed within a building subject to the emission limits in 40 CFR 60.672(e), as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance 40 CFR Part 60 Subparts A and 000. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60 Subparts A and 000. The opacity shall be determined based upon the average of five 6-minute averages. 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 Subpart 000)**

4. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUMOONSHOT, the permittee shall verify the PM emission rate from EUMOONSHOT, 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. The emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods in 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 60.672(a), 40 CFR 60.675(b), 40 CFR 60.676(f))**
5. Within 180 days after the commencement of trial operation of EUMOONSHOT, or within the timeframe approved in writing by the AQD District Supervisor, the permittee shall verify the PM10 and PM2.5 emission rates from EUMOONSHOT 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 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

6. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUMOONSHOT, the permittee shall evaluate opacity from the building enclosing EUMOONSHOT, 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. Testing shall be performed using Method 9 or an approved EPA Method listed in 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 keep a written record of the following information, in a manner satisfactory to the AQD District Supervisor, for EUSCREENING and EUPRETZEL:
  - a) The amount in tons of salt processed per month in each emission unit.
  - b) Calculations determining the total amount of salt processed for the 12-month rolling time period as determined at the end of each calendar month in each emission unit.

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, 40 CFR 52.21(c) & (d))**

3. The permittee shall record the measurement of both the change in pressure of the gas stream across the wet scrubber (in units of inches of water column) and the scrubbing liquid flow rate (in units of gallons per minute) to the wet scrubber for EUSCREENING, EUMOONSHOT, and EUPRETZEL per each calendar operating day and during each particulate matter test run. 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, 40 CFR 60.674(a), 40 CFR 60.676(c), 40 CFR 60.675(f))**
4. The permittee shall perform a non-certified Method 22 visible emission observation of EUSCREENING, EUMOONSHOT, and EUPRETZEL at least once every seven days during routine operations. The test shall be 1 minute in duration. The permittee shall initiate corrective action upon observation of visible emissions exceeding 20 percent opacity and shall maintain a written record of each observation and corrective action. 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, R336.1301, R 336.1901, 40 CFR 52.21 (c)&(d))**
5. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, calculations of the monthly and 12-month rolling time period, as determined at the end of each calendar month, individual PM2.5 and PM10 emission rates from EUSCREENING and EUMOONSHOT, as well as the total combined PM2.5 and PM10 emission rates from EUSCREENING and EUMOONSHOT. This requirement no longer applies after the permittee permanently ceases operation of EUSCREENING as required by SC IX.3. **(R 336.1205)**
6. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, records of calibration of each device for the measurement of the pressure loss across each wet scrubber portion of EUSCREENING, EUMOONSHOT, and EUPRETZEL calibrated on an annual basis in accordance with manufacturer's instructions. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 40 CFR Part 60 Subpart 000)**
7. In the event of a malfunction of a wet scrubber the permittee shall keep all of the following records: **(R 336.1910)**
  - a) The cause of the malfunction.
  - b) The time and duration of the malfunction.

## **VII. REPORTING**

1. After the initial performance test of the wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test. The required reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters. **(40 CFR 60.676(d) & (e))**
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 EUMOONSHOT. **(R 336.1201(7)(a))**
3. Within 30 days after labeling the wet scrubbers and monitoring devices as required in IV.3, the permittee shall notify the AQD District Supervisor in writing the status of compliance with IX.2. **(R 336.1201)**
4. Within 30 days after the permittee permanently ceases operation of EUSCREENING, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the cessation of operation. **(R 336.1201)**

## **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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV031	36.0 <sup>1</sup>	93.0 <sup>1</sup>	R 336.1225
2. SV007	36.0 <sup>1</sup>	93.0 <sup>1</sup>	R 336.1225
3. SVMOONSTCK	49.4	115	R 336.1225 40 CFR 52.21(c) & (d)

#### **IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with the provisions of the Federal Standard of Performance for New Stationary Sources, 40 CFR, Part 60, Subpart OOO. **(40 CFR, Part 60, Subpart OOO)**
2. The permittee shall maintain and update a list and label all equipment in FG000 in a manner acceptable to the District Supervisor. The list shall include the following:
  - a. Equipment, emission controls, and monitoring devices associated with EUPRETZEL, EUMOONSHOT, and EUSCREENING and
  - b. Identification of the equipment ducted to the wet scrubber.

The permittee shall submit a copy of the list to the District Supervisor upon request. **(R336.1201)**

3. Within 180 days of commencement of operation of EUMOONSHOT, or within the timeframe approved in writing by the AQD District Supervisor, the permittee shall permanently cease operation of EUSCREENING. **(R 336.1205)**

#### **Footnotes:**

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

## APPENDIX A

### NO<sub>x</sub> Monitoring Continuous Emission Monitoring System (CEMS) Requirements

**For an existing CEMS: If the permittee has satisfied the installation and testing requirements, Items 1 – 4 do not apply.**

1. Within 30 calendar days after commencement of trial operation, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS.
2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the CEMS to the AQD for approval.
3. Within 180 calendar days after commencement of trial operation, the permittee shall complete the installation and testing of the CEMS.
4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of Performance Specification (PS) 2.
5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations. NSPS Db specifies 500 ppm under 40 CFR 60.48b(e) for natural gas
6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2 of Appendix B to 40 CFR Part 60.
7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).
8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
  - a) A report of each exceedance above 0.20 lb NO<sub>x</sub>/MMBtu heat input or 8.95 lb NO<sub>x</sub> /hour. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
  - b) A report of all periods of CEMS downtime and corrective action.
  - c) A report of the total operating time of the EUBOILER15 during the reporting period.
  - d) A report of any periods that the CEMS exceeds the instrument range.
  - e) If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.