DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B182438007

FACILITY: Morton Salt, Inc.		**SRN / ID:** B1824
LOCATION: 180 6th Street, MANISTEE		**DISTRICT:** Cadillac
CITY: MANISTEE		**COUNTY:** MANISTEE
CONTACT: Don Kuk , EHS & Security Manager		**ACTIVITY DATE:** 12/06/2016
STAFF: Rob Dickman	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection of this major source.		
RESOLVED COMPLAINTS:		

Morton Salt, Inc. is located on the west shore of Manistee Lake in Manistee. The facility uses a coal crusher with a wet venturi scrubber for an 180,000 pounds (216 MMBtu) steam per hour Wickes spreader stoker coal and natural gas co-fired boiler and associated four module baghouse system. The boiler is used to generate electricity, steam, and heat for facility production of salt. A natural gas-fired boiler is also used at the facility as a back-up system for building heat. The process systems consist of mills, conveyors, bucket elevators, pellet presses, vibratory screens, and an enclosed crusher to recycle pellets.

The facility produces various grades of sodium chloride salt products, such as, granular salt, water softener pellets, pretzel salt, and salt blocks. Brine saturated with salt is extracted from wells and is processed through a series of temperature and pressure controlled evaporators, wash tanks, and filters. The salt produced from this process is refined for packaging or is pressed into pellets or blocks.

This facility was inspected per the conditions of Renewable Operating Permit Number MI-ROP-B1824-2015. Following are the findings of the inspection by permit condition:

SOURCE-WIDE CONDITIONS

I. EMISSION LIMIT(S) – HAP emissions from the facility are limited to 9.9 tpy for each individual HAP and 24.9 tpy of all HAPS (aggregate) both based on a 12 month rolling time period at the end of each calendar month. Records from the facility indicate the only HAP emitted from the facility is hydrogen chloride. Records reviewed at the facility indicate these emissions are tracked via coal analysis and usage. As of December 1, 2016, HCl emissions from the facility were 5.5 tons per year based on a 12 month rolling time period.

II. MATERIAL LIMIT(S) – Not Applicable

III. PROCESS/OPERATIONAL RESTRICTION(S) – Not Applicable

IV. DESIGN/EQUIPMENT PARAMETER(S) – Not Applicable

V. TESTING/SAMPLING– Not Applicable

VI. MONITORING/RECORDKEEPING

1. All required calculations shall be completed by the 15th day of the calendar month. All emissions records reviewed at the facility appeared complete and current.

2. The permittee shall keep records of individual and aggregate HAPS. Records from the facility indicate the only HAP emitted from the facility is hydrogen chloride. Records reviewed at the facility indicate these emissions are tracked via coal analysis for Chlorine and coal usage. As of December 1, 2016, HCl emissions from the facility were 5.5 tons per year based on a 12 month rolling time period.

VII. REPORTING

1-3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

4. The facility was required to notify the agency of when the lime injection system was installed and when it began operation. The facility installed a lime injection system in September of 2015. The facility tested the lime injection system in October of 2015. The results of this testing indicated that the facility was able to meet the emission standards of the MACT without the use of lime injection. Please see MACES for further details.

VIII. STACK/VENT RESTRICTION(S) – Not Applicable

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement and maintain an approved fugitive dust control plan for the facility. This plan appears to be implemented at the facility.

2. The permittee is required to implement and maintain a Malfunction Abatement Plan (MAP). The MAP for the facility was last approved in February of 2016. Any deviations from it are reported by the facility. Please see MACES for further details. In response to a change in required control equipment, the facility recently submitted an updated version of the MAP for review and approval.

EUCOALCRUSHER

DESCRIPTION - Coal crushing/conveying equipment

POLLUTION CONTROL EQUIPMENT Venturi Scrubber

I. EMISSION LIMIT(S)

1. PM emissions are limited to 0.10 lb/1000 lbs exhaust gas. Demonstration of compliance with this limit is through optimal control equipment operation. This is indicated by differential pressure and flow rate readings taken and recorded. A review of these records demonstrated compliance with this limit.

II. MATERIAL LIMIT(S) – Not Applicable

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The compliant differential pressure range across the venturi scrubber shall be included in the AQD approved MAP. The facility operates the control equipment within ranges established in the MAP. If the equipment goes out of range, the facility reports it as part of their deviation reporting. Please see MACES for further details.

2. The compliant minimum liquid flow rate through the venturi scrubber shall be included in the AQD approved MAP. The facility operates the control equipment within ranges established in the MAP. If the equipment goes out of range, the facility reports it as part of their deviation reporting. Please see MACES for further details.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a differential pressure gauge on the venturi scrubber. This

gauge is installed.

2. The permittee shall install a liquid flow rate indicator on the venturi scrubber. This indicator is installed.

V. TESTING/SAMPLING – Not Applicable

VI. MONITORING/RECORDKEEPING

1. The permittee shall monitor and record the differential pressure across the venturi scrubber once per day when EUCOALCRUSHER is operating. A review of records indicates this is being performed.

2. The permittee shall monitor and record the scrubbing liquid flow rate through the venturi scrubber once per day when EUCOALCRUSHER is operating. A review of records indicates this is being performed.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

VIII. STACK/VENT RESTRICTION(S) – Not Applicable

IX. OTHER REQUIREMENT(S) – Not Applicable

EU#6BOILER

DESCRIPTION: Wickes spreader stoker coal and natural gas co-fired boiler capable of producing 180,000 pounds of steam per hour (216 MMBTU/hr heat input) which is used for generating process steam, electricity and heat for facility production.

POLLUTION CONTROL EQUIPMENT - Four module baghouse system and dry scrubber; Lime Injection System

I. EMISSION LIMIT(S)

1. PM emissions are limited to 0.30 lb/1000 lbs exhaust gas. Demonstration of compliance with this limit is through stack testing. This testing was last performed in August of 2013 and demonstrated compliance. Please see MACES for further details.

2. SO2 emissions are limited to 2.5 lbs/MMBtu. Demonstration of compliance with this limit is through coal content analysis. Coal is limited to 1.5% sulfur content by weight. This is performed on a per ship load received basis. The most recent analysis for this was on 12/9/16 and indicated a sulfur content of 0.54%.

3. Mercury emissions are limited to 2.2 E-05 lb/MMBTU. Demonstration of compliance with this limit is through stack testing. This testing was last performed in October of 2015 and demonstrated compliance. Please see MACES for further details.

4. CO emissions are limited to 420 ppm dry @ 3% oxygen. Demonstration of compliance with this limit is through stack testing. This testing was last performed in October of 2015 and demonstrated compliance. Please see MACES for further details.

5. Visible emissions are limited to 10% opacity. Demonstration of compliance with this

limit is through an opacity monitoring system. Records for the last 12 months indicate compliance. Please see MACES for details on excess emissions and monitoring system downtime.

II. MATERIAL LIMIT(S)

1. Coal is limited to 1.5% sulfur content by weight. This is performed on a per ship load received basis. The most recent analysis for this was on 12/9/16 and indicated a sulfur content of 0.54%.

2. Coal is limited to 1.9% chlorine content by weight. This is performed on a per ship load received basis. The most recent analysis for this was on 12/9/16 and indicated 14 ppm or 0.014% chlorine content by weight.

3. The design maximum heat input for firing natural gas, of the total heat input capacity for all fuels fired in EU#6BOILER, shall not exceed a maximum of 82 MMBTU per hour. Demonstration of compliance with this limit is through monitoring natural gas usage which is being performed.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU#6BOILER unless the baghouse is operating properly. At the time of the inspection, the baghouse was in operation. Opacity at the stack was 1.9%

2. The permittee shall operate EU#6BOILER to minimize the boiler's startup and shutdown periods. The permittee appears to follow good engineering practices to minimize startup and shutdown periods. Please see MACES for details regarding any deviations associated with this boiler.

3. The permittee shall operate and maintain, in a satisfactory manner, a device to monitor and record the natural gas usage from EU#6BOILER on a continuous basis. The boiler is so equipped.

4. The permittee shall operate and maintain a differential pressure gauge to determine pressure across the baghouse. The boiler is so equipped.

5. The permittee shall calibrate, operate and maintain in a satisfactory manner, a Continuous Opacity Monitor (COM) to monitor and record the visible emissions from EU#6BOILER on a continuous basis. This equipment is installed. Please see MACES for details regarding excess emissions and monitoring system performance.

6. After the lime injection system is installed, the permittee shall operate and maintain, in a satisfactory manner, devices to monitor and record the coal usage rate and hydrated lime injection rate in EU#6BOILER on a continuous basis. These devices are in place. However, it was determined through testing that the lime injection system is not necessary to maintain compliance with HCl emissions limits.

7. Upon installation of the lime injection system the permittee shall not operate EU#6BOILER unless the lime injection system is maintained and operated in a satisfactory manner. It was determined through testing that the lime injection system is not necessary to maintain compliance with HCl emissions limits.

8. Maintain the lime injection rate at or above the level determined during stack testing (or by other methods approved by the District Supervisor) using methodology in the MAP. It was

determined through testing that the lime injection system is not necessary to maintain compliance with HCl emissions limits.

9. Upon installation of the lime injection system , the permittee shall calibrate, operate, and maintain an oxygen analyzer system. This system is installed on the boiler.

10. The permittee must operate the oxygen analyzer system at or above the minimum oxygen level that is established as the operating limit when firing the fuel utilized during the most recent CO performance test. The boiler is so operated. Please see MACES for details regarding any deviations associated with this boiler.

11. The permittee shall complete a one-time energy assessment by the time the lime injection system is installed. This assessment was performed in November of 2009.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Upon installation of the lime injection system, the permittee shall install, in a satisfactory manner, devices to monitor and record the coal usage rate and hydrated lime injection rate in EU#6BOILER on a continuous basis. It was determined through testing that the lime injection system is not necessary to maintain compliance with HCl emissions limits.

2. Upon installation of the lime injection system, the permittee shall install an oxygen analyzer system, according to the manufacturer's recommendations. This system is installed on the boiler.

3. The COM must be installed according to Performance Specification 1 of 40 CFR part 60, Appendix B. This system is installed per this criteria.

4. The design heat input rate for EU#6BOILER shall not exceed 216 MMBTU/hr. The nameplate heat input maximum to the boiler is 216 MMBTU/hr .

V. TESTING/SAMPLING

1. If the permittee elects to demonstrate compliance with mercury emission limit through fuel analysis, and if plans are to burn a new type of fuel or fuel mixture, the permittee shall conduct a fuel analysis before burning the new type of fuel or mixture in EU#6BOILER. The facility currently only burns coal. Compliance with the mercury limit is through stack testing.

2. The permittee shall conduct an analysis of the coal, in a manner acceptable to the AQD, to determine the sulfur content, chlorine content and higher heating value. The analysis shall be performed for each shipment of coal received. Analysis for each of these has been completed.

4. The permittee shall verify PM emission rates from EU#6BOILER when burning coal. This testing was last performed September of 2013 and demonstrated compliance. Please see MACES for further details.

5. Within 180 days of installation of the lime injection system, the permittee shall verify hydrogen chloride (HCl), Hg and CO emission rates from EU#6BOILER when burning coal. This testing was last performed in October of 2015 and demonstrated compliance. Please see MACES for further details.

6. The permittee shall determine the applicable lime injection rate, coal usage rate, and the lowest hourly average oxygen level during performance testing. This testing was last performed in October of 2015. Please see MACES for further details.

7. Within 180 days after installation of the lime injection system, the permittee shall conduct a performance evaluation of the oxygen analyzer system in accordance with the site-specific monitoring plan. Calibration of the system is performed quarterly. The site specific monitoring plan was originally issued in December of 2015, and revised in March of 2016.

8. The permittee shall perform an annual audit of the COM according to the requirements in 40 CFR 63.8 and according to Performance Specification 1 of 40 CFR Part 60, Appendix B and using the procedures set forth in USEPA Publication No. 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to the AQD. This testing was last performed in June of 2016 and demonstrated compliance. Please see MACES for further details.

VI. MONITORING/RECORDKEEPING

1. The permittee shall continuously monitor and record the differential pressure across the baghouse. Records reviewed at the facility indicate this is being performed.

2. The permittee shall monitor and record the visible emissions from EU#6BOILER on a continuous basis. COMS equipment is installed on this equipment. Please see MACES for details on excess emissions and COMS performance.

3. The permittee shall keep records of start-up and shutdown periods of EU#6BOILER. Records were available for review.

4. Permittee shall use the COM as an indicator of the proper functioning of the baghouse. The appropriate range of opacity defining the proper functioning of the baghouse is 0-15% opacity. The COMS was operating at the time of the inspection. The facility uses the data from this system to comply with CAM.

5. The permittee shall continuously record opacity. COMS equipment is installed on this equipment. Please see MACES for details on excess emissions and COMS performance.

6. The permittee shall use the COM to assure compliance with the PM limit. The facility so uses the COMS. Reporting regarding CAM is submitted semiannually. Please see MACES for further details.

7. The permittee shall operate the COM during all periods that the emission unit is operating. The facility operates the COMS continuously. Reporting regarding CAM is submitted semiannually. Please see MACES for further details.

8. In the event of an excursion of more than 15% opacity, the owner or operator shall restore operation of EU#6BOILER (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. Reporting regarding CAM is submitted semiannually. Please see MACES for further details.

9. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. Reporting regarding CAM is submitted semiannually. Please see MACES for further details.

10. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. The facility maintains a stock

of replacement parts as recommended by the manufacturer.

11. All required calculations shall be completed by the 15th day of the calendar month. All required records for the facility are kept in a timely manner.

12. The permittee shall calculate, when necessary, and keep the following records for each calendar day that EU#6BOILER is operated:

- **a. Identification, type and the amounts (in tons of coal and cubic feet of natural gas) of all fuels combusted. The facility only burns natural gas during startup of the unit. Coal is the main fuel.**
- **b. Sulfur content and higher heating value (BTU/lb) of coal being combusted. This is tracked on a per shipment basis.**
- **c. Determination of compliance with the SO2 emission limits.**
- **d. All applicable records required in the MAP.**

All required records for the facility are kept in a timely manner.

13. After providing notice of the installation of the lime injection system, the permittee is required to keep daily records regarding the system. However, Records of lime injection are not kept as it was determined through testing that HCl limits could be met without lime injection.

14. The permittee shall record the time and duration of each EU#6BOILER baghouse maintenance period (operation of only three out of four baghouse modules). These records were available for review.

15. After providing notice of the installation of the lime injection system, the permittee shall operate the COM in compliance with the procedures detailed in the MACT. These procedures mirror those required of any required COMS and are being followed. Please see MACES for details on excess emissions and COMS monitor performance.

16. The permittee shall maintain the 30-day rolling average oxygen level at or above the lowest hourly average oxygen level measured during the most recent performance test. The oxygen monitor system monitors continuously. The data acquisition system for it compiles the data required. A review of records indicates they maintain the proper average (9-9.5%).

17. The permittee shall operate the oxygen analyzer system to complete a minimum of one cycle of operation every 15 minutes. The oxygen monitor system monitors continuously.

18. The permittee shall keep the energy assessment report on file and make the report available to the Department upon request. This assessment was performed November of 2009.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

4. The permittee shall notify the district within 30 days of installation of the lime injection system. This notification was received in September of 2015. Please see MACES for further details.

5. The permittee shall submit a Notification of Compliance Status no later than 120 days after installation of the lime injection system. This notification was received in October of 2015. Please see MACES for further details.

6-8. Stack testing procedures and reporting were handled through the testing protocol process and were performed correctly. Please see MACES for further details.

9. An EER and summary report shall be submitted within 30 days following the end of each calendar quarter. These reports have been submitted in a timely manner. Please see MACES further details.

10. The permittee shall submit a semi-annual excursion report. These reports have been submitted in a timely manner. Please see MACES further details.

11. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. These reports have been submitted in a timely manner. Please see MACES further details.

12. The permittee shall submit the site-specific monitoring plan to the AQD district supervisor at least 60 days before the initial performance evaluation of the oxygen analyzer system. This report was submitted in December of 2015.

13. The permittee shall submit a signed statement in the Notification of Compliance Status report that indicates startups and shutdowns were conducted according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available. This report was submitted in October of 2015.

VIII. STACK/VENT RESTRICTION(S)

There is one stack associated with the boiler. The stack appears in compliance with criteria listed in the ROP and does not appear to have been recently altered.

IX. OTHER REQUIREMENT(S)

1. The permittee shall promptly notify the AQD for the need to modify the CAM Plan if the existing plan is found to be inadequate. The CAM plan has not been modified and appears adequate.

2. The permittee shall comply with all applicable requirements of 40 CFR, Part 64. The facility is in compliance with all applicable parts of CAM.

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart JJJJJJ for Industrial, Commercial, and Institutional Boilers Area Sources. The facility is in compliance with all applicable parts of 40 CFR Part 63, Subpart A and Subpart JJJJJJ.

4. The permittee shall develop a site-specific monitoring plan for the oxygen analyzer system. This monitoring system plan was submitted in December of 2015.

<u>EUMILLTRANSFER</u>

DESCRIPTION - Salt transfer system consisting of mills, conveyors, bucket elevators, screens, feed tanks, salt bagging equipment, and salt bulk loading equipment.

POLLUTION CONTROL EQUIPMENT - Two Wet Scrubbers

I. EMISSION LIMIT(S)

1. PM emissions are limited to 0.10 lb/1000 lbs exhaust gas. Demonstration of compliance with this limit is through optimal control equipment operation. This is indicated by differential pressure and flow rate readings taken and recorded. A review of these records demonstrated compliance with this limit.

II. MATERIAL LIMIT(S) – Not Applicable

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The compliant minimum liquid flow rate through the venturi scrubber shall be included in the AQD approved MAP. The facility operates the control equipment within ranges established in the MAP. If the equipment goes out of range, the facility reports it as part of their deviation reporting. Please see MACES for further details.

2. The permittee shall operate and maintain the differential pressure gauges to determine pressures across the two wet scrubbers. The facility operates the control equipment within ranges established in the MAP. If the equipment goes out of range, the facility reports it as part of their deviation reporting. Please see MACES for further details.

3. The permittee shall not operate EUMILLTRANSFER unless the wet scrubbers are installed and operating properly. They are installed and were operating at the time of the inspection.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a differential pressure gauge on each wet scrubber. This gauge is installed.

2. The permittee shall install a liquid flow rate indicator on each wet scrubber. This indicator is installed.

V. TESTING/SAMPLING – Not applicable

VI. MONITORING/RECORDKEEPING

1. The permittee shall monitor and record the pressure drop across the two wet scrubbers on a daily basis when EUMILLTRASNSFER is operating. A review of records indicates this is being performed. A reading taken during the inspection was 1.0 inches of water for the Northeast scrubber and 3.0 inches of water for the Northwest scrubber.

2. The permittee shall monitor and record the scrubbing liquid flow rate through each wet scrubber on a daily basis when EUMILLTRANSFER is operating. A review of records indicates this is being performed. A reading taken during the inspection was 7.0 gallons per minute for the Northeast scrubber and 7.7 gallons per minute for the Northwest scrubber.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

VIII. STACK/VENT RESTRICTION(S) – Not Applicable

IX. OTHER REQUIREMENT(S) – Not Applicable

EUPELLETCOOLING

DESCRIPTION - Water softener pellet product cooling system.

POLLUTION CONTROL EQUIPMENT - Venturi Scrubber

I. EMISSION LIMIT(S)

1. PM emissions are limited to 0.30 lb/1000 lbs exhaust gas. Demonstration of compliance with this limit is through stack testing. This testing was last performed in September of 2013 and demonstrated compliance. Please see MACES for further details.

2. Visible emissions are limited to 10% opacity. Demonstration of compliance with this limit is through Method 9 observations during stack testing. This testing was last performed in September of 2013 and demonstrated compliance. Please see MACES for further details.

II. MATERIAL LIMIT(S) – Not Applicable

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUPELLETCOOLING unless the wet scrubber is operating properly. At the time of the inspection, the scrubber was in operation.

2. The permittee shall operate and maintain a liquid flow rate indictor to determine amount of liquid through the wet scrubber. This indicator is installed and appeared to be operating.

3. The permittee shall operate and maintain the differential pressure gauge to determine pressure drop across the wet scrubber. This gauge is installed and appeared to be operating.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a device to continuously measure the pressure loss of the gas stream through the scrubber. This equipment is installed. Certification of the accuracy of this device is stamped on the device by the manufacturer.

2. The permittee shall install a device to continuously measure the scrubbing liquid flow rate through the wet scrubber. This equipment is installed. Certification of the accuracy of this device is stamped on the device by the manufacturer.

V. TESTING/SAMPLING

1. The permittee shall conduct performance testing for verification of the particulate matter emissions from EUPELLETCOOLING. This testing was last performed in September of 2013. Please see MACES for further details.

2. The permittee shall establish the applicable liquid flow rate and differential pressure during performance testing. This testing was last performed in September of 2013. Please see MACES for further details.

3. The permittee shall determine compliance with visible emissions from the building housing EUPELLETCOOLING. This testing was last performed in September of 2013. Please see MACES for further details.

VI. MONITORING/RECORDKEEPING

1. The permittee shall maintain documentation of the accuracy of the differential pressure gauge from the manufacturer. The accuracy of the unit is stamped on the side of it.

2. The permittee shall calibrate the differential pressure gauge on an annual basis in accordance with manufacturer's instructions and record the date of each annual calibration. The date of the last calibration was May 2016.

3. The permittee shall maintain documentation of the accuracy of the scrubbing liquid flow rate indicator from the manufacturer. The accuracy of the unit is stamped on the side of it.

4. The permittee shall calibrate the scrubbing liquid flow rate indicator on an annual basis in accordance with manufacturer's instructions and record the date of each annual calibration. The date of the last calibration was May 2016.

5. The permittee shall monitor and record the differential pressure across the wet scrubber on a daily basis. This is being performed. A reading taken during the inspection was 3.5 inches of water, gauge.

6. The permittee shall monitor and record the scrubbing liquid flow rate through the wet scrubber on a daily basis. This is being performed. A reading taken during the inspection was 29 gpm.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

4. On a semi-annual basis, the permittee shall report all occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30% from the average determined during the most recent performance test. This reporting is being performed. Please see MACES for further details.

5-7. Stack testing procedures and reporting were handled through the testing protocol process and were performed correctly. Please see MACES for further details.

VIII. STACK/VENT RESTRICTION(S)

1. There is one stack associated with this EU. The stack appears in compliance with criteria listed in the ROP and does not appear to have been recently altered.

IX. OTHER REQUIREMENT(S)

The facility is in compliance with all applicable requirements of 40 CFR Part 60, Subpart OOO.

EUTM/BLOCK

DESCRIPTION - Salt product process and packaging machinery for the production of salt and trace mineral blocks.

POLLUTION CONTROL EQUIPMENT - Baghouse

I. EMISSION LIMIT(S) - PM emissions are limited to 0.10 lb/1000 lbs exhaust gas. Demonstration of compliance with this limit is through optimal control equipment operation. This is indicated by differential pressure readings taken and recorded. A review of these records demonstrated compliance with this limit.

II. MATERIAL LIMIT(S) – Not Applicable

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The compliant differential pressure range across the baghouse shall be included in the AQD approved MAP. The facility operates the control equipment within ranges established in the MAP. If the equipment goes out of range, the facility reports it as part of their deviation reporting. Please see MACES for further details.

2. The permittee shall not operate EUTM/BLOCK unless the baghouse is installed and operating properly. At the time of the inspection, the baghouse was in operation.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a differential pressure gauge on the baghouse. The baghouse is so equipped.

V. TESTING/SAMPLING – Not applicable

VI. MONITORING/RECORDKEEPING

1. The permittee shall monitor and record the differential pressure across the baghouse on a daily basis when EUTM/BLOCK. These records are being kept. A reading taken during the inspection was 1.0 inches of water, gauge.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

VIII. STACK/VENT RESTRICTION(S) – Not Applicable

IX. OTHER REQUIREMENT(S) – Not Applicable

FGPELLPRETZEL

DESCRIPTION - A totally enclosed pretzel salt production system which includes a main crusher, a pellet press, an screw conveyor, a recycle crusher, a bucket elevator, a sizing screener; and a water softener pellet production system which includes pellet briquetting machines, a vibratory screen, belt conveyors, bucket elevators, and an enclosed crusher to recycle pellets.

Emission Unit: EUPELLPROD, EUPRETZELSALT

POLLUTION CONTROL EQUIPMENT - 33,000 cfm baghouse known as the MAC dust collector.

I. EMISSION LIMIT(S)

1. PM emissions are limited to 0.014 gr/dscf. Demonstration of compliance with this limit is through stack testing. This testing was last performed in October of 2014 and demonstrated compliance. Please see MACES for further details.

2. PM-10 emissions are limited to 3.96 lbs/hr. Demonstration of compliance with this limit is through stack testing. This testing was last performed in October of 2014 and demonstrated

compliance. Please see MACES for further details.

3. PM-2.5 emissions are limited to 3.96 lbs/hr. Demonstration of compliance with this limit is through stack testing. This testing was last performed in October of 2014 and demonstrated compliance. Please see MACES for further details.

4. Visible emissions are limited to 7% opacity on buildings housing this EU. Demonstration of compliance with this limit is through testing. This testing was last performed in September of 2014 and demonstrated compliance. Please see MACES for further details.

II. MATERIAL LIMIT(S) – Not applicable

III. PROCESS/OPERATIONAL RESTRICTION(S

1. The permittee shall not operate FGPELLPRETZEL unless the baghouse is installed and operating properly. At the time of the inspection, the baghouse was in operation.

2. Salt that is collected in and recovered from the baghouse shall be handled in a manner that minimizes the introduction of air contaminants to the outer air. Salt collected is re-entrained in to the process.

3. The permittee shall operate and maintain the baghouse with a differential pressure gauge. The baghouse is so equipped.

4. The compliant differential pressure range across the baghouse shall be included in the AQD approved MAP. This information is included in the MAP

IV. DESIGN/EQUIPMENT PARAMETER(S) – Not Applicable

V. TESTING/SAMPLING

1. The permittee shall verify and quantify PM, PM 10 and PM 2.5 emission rates from FGPELLPRETZEL by testing This testing was last performed in October of 2014 and demonstrated compliance. Please see MACES for further details.

2. The permittee shall determine compliance with visible emissions from the building housing FGPELLPRETZEL. Testing for this is performed via Method 22 on a quarterly basis. The most recent test was performed in October of 2016 and demonstrated compliance. Quarterly records of testing are available.

VI. MONITORING/RECORDKEEPING

1. The permittee shall monitor and record the pressure drop across the baghouse on a daily basis. These readings are being recorded. A pressure drop reading taken during the inspection was 1.8 inches of water, gauge.

2. The permittee shall conduct and document 30-minute visible emissions observations using EPA Method 22, on a quarterly basis . The most recent test was performed in October of 2016 and demonstrated compliance. Quarterly records of testing are available.

3. The permittee shall record each visible emission observation from the stack, including the date and any corrective actions taken, in a written or electronic logbook. These readings are being recorded.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

4-6. Stack testing procedures and reporting were handled through the testing protocol process and were performed correctly. Please see MACES for further details.

VIII. STACK/VENT RESTRICTION(S)

1. There is one stack associated with the boiler. The stack appears in compliance with criteria listed in the ROP and does not appear to have been recently altered.

IX. OTHER REQUIREMENT(S)

1. The facility is in compliance with all applicable requirements of 40 CFR Part 60, Subpart OOO.

FGHANDLING

DESCRIPTION - Material handling system consisting of conveyors and bucket elevators used to transfer salt to other processes within the facility.

Emission Units: EUFILTERTRANSFER, EUBINTRANSFER

POLLUTION CONTROL EQUIPMENT - Two Wet Impingement Scrubbers

I. EMISSION LIMIT(S)

PM emissions are limited to 0.027 lbs/1,000 lbs of exhaust gases. Demonstration of compliance with this limit is through optimal control equipment operation. This is indicated by differential pressure readings taken and recorded. A review of these records demonstrated compliance with this limit.

II. MATERIAL LIMIT(S) – Not Applicable

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGHANDLING unless the wet impingement scrubbers are installed and operating properly. The scrubbers were operating at the time of the inspection.

2. The permittee shall operate and maintain the differential pressure gauges to determine pressure drop across each wet scrubber. The scrubbers are so equipped.

3. The permittee shall operate and maintain liquid flow rate indictors to determine amount of liquid through each wet scrubber. The scrubbers are so equipped.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a liquid flow rate indicator on each wet impingement scrubber. The scrubbers are so equipped.

2. The permittee shall install a differential pressure gauge on each wet impingement scrubber. The scrubbers are so equipped.

V. TESTING/SAMPLING – Not Applicable

VI. MONITORING/RECORDKEEPING

1. The permittee shall monitor and record the differential pressure across each wet impingement scrubber on a daily basis. These readings are being recorded. A reading taken during the inspection was 7.5 inches of water for the Filter Transfer scrubber and 7.0 inches of water for the Bin Transfer scrubber.

2. The permittee shall monitor and record the liquid flow rate through each wet impingement scrubber on a daily basis. These readings are being recorded. A reading taken during the inspection was 12.2 gallons per minute for the Filter Transfer scrubber and 12 gallons per minute for the Bin Transfer scrubber.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

VIII. STACK/VENT RESTRICTION(S) – Not Applicable

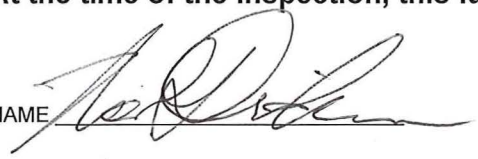
IX. OTHER REQUIREMENT(S) – Not Applicable

FGRULE 287(c)

This group currently consists of one small coating booth with dry fabric filter control. It has not been in operation in the last 12 months.

FGCOLDCLEANERS
This group consists of two cold cleaners. Each is serviced by the facility with disposal of spent solvents to an approved waste hauler. Each was properly signed, appeared in good condition, and was closed when not in use.

At the time of the inspection, this facility was in compliance with their air permitting.

NAME  DATE 12/6/16 SUPERVISOR SN