

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

B155946201

FACILITY: St. Marys Cement, Inc. (U.S.)		SRN / ID: B1559
LOCATION: 16000 BELLS BAY RD, CHARLEVOIX		DISTRICT: Cadillac
CITY: CHARLEVOIX		COUNTY: CHARLEVOIX
CONTACT: Cortney K. Schmidt, Environmental Manager		ACTIVITY DATE: 08/30/2018
STAFF: Rob Dickman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection of this major source.		
RESOLVED COMPLAINTS:		

St. Mary's Cement, Inc. (US) is a Portland Cement manufacturing facility located on the shores of Lake Michigan at 16000 Bells Bay Road in Charlevoix, Charlevoix County, Michigan. Cement manufacturing has been occurring at this site since circa 1966. In April 2005, St. Mary's Cement, Inc. (US) purchased the operations from CEMEX. The total area of the facility, including the quarry is approximately 1370 acres. The actual production and shipping facilities occupy approximately 80 acres.

The plant operates one dry process rotary kiln. The kiln typically operates 24 hours per day, 7 days a week, for approximately 300 days in the year. The current kiln is new and replaced the previous kiln earlier this year under Permit to Install 140-15. The kiln system is rated at 6000 tons of clinker per day. The kiln uses a combination of coal and petroleum coke as a fuel source. Certain alternative fuels, including plastics and propane, are allowed but are not being used at this time. Raw materials are ground and mixed including various materials from on-site and off-site sources. The requirements for the process include approximately 80 percent calcium oxides, 10 percent aluminum oxides, 5 percent iron oxide and 5 percent silica oxide. These oxides are typically derived from limestone, shale, bottom ash, fly ash, bauxite, mill scales, slags, various sands, numerous iron sources, clay, overburden and other sources. The majority of raw materials are obtained on-site from St. Mary's Cement, Inc. (US) quarrying operations; all offsite materials are brought to the site by trucks, ships, and/or barges.

The site includes: the quarry operations, conveying and storage systems for raw materials, grinding and blending the raw materials, the preheater tower (Precalciner), the kiln, clinker cooler, clinker conveying, clinker storage, clinker grinding (finish mills), cement storage systems, and shipping facilities.

I inspected this facility per Renewable Operating Permit (ROP) number MI-ROP-B1559-2014. In addition to the ROP, there are two Permits to Install (PTI) in effect for the facility. PTI Number 115-15 is for installation of a new blending silo (EUBLENDSILO). PTI Number 140-15 details several major changes to the facility including installation of a new kiln. In February of 2018, the facility, per 40 CFR 60.2790, notified the AQD that they would be ceasing the burning of non-hazardous waste as fuel and the new kiln would not be subject to 40 CFR 60, Subpart DDDD (CISWI) but rather would be subject to 40 CFR 63, Subpart LLL (PC-MACT). The new kiln was also inspected per this regulation. Also, the facility is subject to regional haze regulations per 40 CFR 52.1183. My contact for this inspection was Cortney Schmidt, Environmental Manager for the facility. Prior to coming on site, no fugitive or point source emissions were noted from the facility. Following are the findings of this inspection:

#### MI-ROP-B1559-2014

##### Source-wide Conditions

##### Emission Limits

There are no emissions limits associated with this unit; therefore, this section is not applicable.

##### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

##### Process or Operational Restrictions

The facility is required to have a source wide Malfunction Abatement Plan (MAP). The most recent version of this on file is dated July of 2014 and was approved October of 2016. It should be noted that some of the current MAP does not apply to all emission units at the facility as several pieces of equipment have been recently replaced. Per an approval letter (attached) from Janis Ransom, AQD District Supervisor, an updated MAP will be submitted no later than 90 days following notification of startup of the new kiln process. This notification was sent September 4, 2018; therefore, the updated MAP is due no later than December 4, 2018. The facility is also required to have a source wide Fugitive Emissions Plan (FEP). The facility has a facility wide fugitive emissions plan on file and the most recent version of it is dated November of 2017 and was approved December of 2017. This plan will be updated and submitted with the facility's ROP renewal application due no later than February of 2019.

#### Design or Equipment Parameters

There are no design or equipment parameters associated with this unit; therefore, this section is not applicable.

#### Testing and Sampling Requirements

There are no testing or sampling requirements associated with this unit; therefore, this section is not applicable.

#### Monitoring and/or Recordkeeping Requirements

Records of all repairs initiated as a result of inspections pursuant to the MAP are required. This facility maintains a work order system that stores records of all inspections and repairs made. These records were readily available for review.

The facility is also required to keep records specified in the fugitive emissions plan. Daily records of watering and sweeping are kept manually by the equipment operators and were available for review.

#### Reporting

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

#### Stack/Vent Restrictions

There are no stack or vent restrictions associated with this unit; therefore, this section is not applicable.

#### Other Requirements

The facility is required to comply with the MAP. This includes inspection of the many dust collectors on site and recordkeeping of any maintenance performed on them. A review of records indicates the facility appears in compliance with it. The facility is required to comply with the FEP. At the time of inspection, roadways appeared in good condition. Storage piles appeared in good condition and no visible emissions from them were noted. Records associated with the FEP indicate compliance.

The facility has agreed to a consent decree with EPA, Consent Decree Case No. 1:06-cv-607. The only applicable part of the decree, as all other requirements have been completed, is that the facility submit annual reporting on the progress of installation of the kiln indirect firing system and main stack baghouse. These projects have been completed. This Consent Decree was terminated in April of 2017. A copy of this termination is attached to this report.

**EUPORTABLECRUSH** - This emission unit consists of a 100 ton per hour portable nonmetallic mineral crushing facility consisting of a crusher and associated process equipment including grinding mills, loading operations, and any other material handling equipment operated at the site. Control is by spray water bars or enclosure.

This emission unit has not been on site and operating in the last 12 months. It was removed from the facility approximately seven years ago and is not anticipated to return. Notification and testing would be required should the equipment return to the facility.

**FGQUARRY** - This Flexible Group consists of equipment used in the mining and crushing of limestone. Included here are the drilling, blasting and hauling of the limestone in the quarry; the crushing of the limestone in the primary and secondary crushers; and handling of dust including fugitive emissions from the quarry and dust from the secondary crusher. This group consists of **EUHAMMER**, **EUQUARRYFUGITIVE**, and **EUSECONDARYCRUSH**. Control is by fabric filters and baghouse. In addition to state rules, **EUHAMMER** is subject to 40 CFR, Part 60, Subpart OOO.

#### Emission Limits

Visible emissions from **EUHAMMER** of this group are limited to 15% opacity. At the time of the inspection, this unit was not in operation. The operator demonstrated what this equipment is used for and how. Basically, if a chunk of rock is too big or gets stuck in the throat of the primary crusher, this is used to break and/or move it. Use of this equipment is infrequent and emissions from it when in use are negligible. Visible emissions from **EUQUARRYFUGITIVE** are limited to 5% opacity. At the time of the inspection, no other fugitive emissions were noted. Visible emissions from **EUSECONDARYCRUSH** are limited to 20% opacity. No emissions were noted from the building housing the secondary crusher. However, there was a malfunction on this process during this inspection causing excess emissions from one of the covered conveyor belts servicing the process. The process was shut down before Mr. Schmidt had the opportunity to report the issue.

#### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

#### Process or Operational Restrictions

There are no process or operational restrictions associated with this unit; therefore, this section is not applicable.

#### Design or Equipment Parameters

There are no design or equipment parameters associated with this unit; therefore, this section is not applicable.

#### Testing and Sampling Requirements

There are no testing or sampling requirements associated with this unit; therefore, this section is not applicable.

#### Monitoring and/or Recordkeeping Requirements

Monthly one-minute visible emissions observation using USEPA Method 22 are required to be conducted on **EUQUARRYFUGITIVE**, **EUHAMMER**, and **EUSECONDARYCRUSH**. These readings are being performed monthly and a review of records demonstrated compliance. A sample of how these records are kept is attached to this report.

#### Reporting

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

#### Stack/Vent Restrictions

There are no stack or vent restrictions associated with this unit; therefore, this section is not applicable.

### Other Requirements

The facility is required to comply with all applicable requirements of the New Source Performance Standards for Nonmetallic Mineral Processing Plants as specified in 40 CFR, Part 60, Subpart OOO. Review of this subpart indicates that if the facility is in compliance with the applicable conditions of this section, they are in compliance with this subpart.

FGKILNRAWMILLS - This Flexible Group consists of equipment used in the mixing and grinding, then heating of the ingredients used to make cement. These materials can include: limestone, shale, bottom ash, fly ash, bauxite, mill scales, slags, various sands, numerous iron sources, clay, overburden, aluminum pot furnace refractory, and clear, brown and green glass. The desired combination of materials are process and mixed in EURAWMILLS. These raw materials are then sent to the EUKILN where they are heated and become clinker. This Flexible Group also contains the requirements for the use of asphalt flakes and plastic as a fuel in the in-line calciner with indirect firing. These processes exhaust through the Main and Bypass stacks. This group was in operation until April of 2018 after which the equipment was replaced with new equipment as listed in Permit to Install 140-15. Findings of the inspection relating to this new equipment are addressed later in this report. Some of the findings of the inspection listed here reflect operation prior to April of 2018.

### Emission Limits

Particulate Matter (PM) emissions are limited to 0.25 lb/1000 lbs exhaust gas. Demonstration of compliance with this limit is through stack testing. This testing is performed annually. The last test performed on this equipment was in July of 2017. The Main Stack particulate emission results were 0.15 #/1000# exhaust gases and the Bypass Stack particulate emission results were 0.001 #/1000# exhaust gases.

Sulfur Dioxide (SO<sub>2</sub>) emissions are limited to 2800 lbs/hour as the average of each calendar day, 550 tons/month and 4404 tons/year based on a 12-month rolling time period, as determined at the end of each calendar month. Demonstration of compliance with this limit is through Continuous Emission Monitoring Systems (CEMS). The facility is required to report any excess emissions or monitoring system downtime quarterly. Records regarding this monitoring are reviewed and documented quarterly.

NO<sub>x</sub> emissions are limited to 6.50 lbs/ton of clinker produced based on a monthly average, as determined at the end of each calendar month, from May 1 through September. 307.67 lbs/ton of clinker produced based on a monthly average, as determined at the end of each calendar month, from October 1 through April 30. Demonstration of compliance with this limit is through CEMS. The facility is required to report any excess emissions or monitoring system downtime quarterly. Records regarding this monitoring are reviewed and documented quarterly.

### Material Limits

Petroleum coke is limited to 69 ng of mercury/gram of petroleum coke. There is currently no requirement to test this material for mercury. However, Mr. Schmidt indicated they were required to test at one time, the testing demonstrated mercury content well below the limit, and the requirement to test was lifted.

Asphalt flake and plastic is limited to 8.0 tons per hour feed to the kiln. Asphalt flake is allowed to be burned but has not been burned at the facility in the last 12 months. It is anticipated that it never will be burned as it adversely affects product quality. Production records regarding the feeding of plastics were reviewed and demonstrated a feed rate less than 8.0 tons per hour.

Asphalt flake and plastic is limited to 121 ppb by weight of mercury. Mercury in the plastic fuel is analyzed on a per shipment basis and has demonstrated compliance with the content limit. The last analysis performed was in January of 2018 and mercury content was below the detection limit for it.

Any fuel fed to the kiln cannot contain asbestos. The only material that may contain asbestos is the asphalt flake and this material is not in use.

### Process or Operational Restrictions

No more than 4,840 tons of clinker per day was allowed to be produced. This was the maximum capacity of the equipment prior to kiln reconstruction. A review of records demonstrated the facility did not operate past the capacity of the equipment.

When burning petroleum coke as fuel, it must be introduced at the entrance of the kiln. The facility was configured to feed material only in this manner.

Any glass processed must be clear, brown, or green. The facility has not used glass as a raw material in the last 12 months and does not intend to use it as it adversely affects product quality.

Aluminum based refractory is allowed as a raw material. This material has not been used in the last 12 months.

The permittee shall only feed the asphalt flake and/or plastic fuel to the in-line calciner. Asphalt flake is not used at the facility. The alternative feed system is configured to only feed the calciner.

The permittee shall not discharge exhaust gases through SVBYPASS unless the baghouse is operating. The facility had no records indicating operation of this system without the baghouse in operation.

The bypass stack baghouse must have a working broken bag detector with audible alarm. This equipment is in place and an audible alarm for it is located in the control room.

The main baghouse must be equipped with a differential pressure gauge. A gauge is still required with the upgrade of equipment. It is installed and appeared to be operating. At the time of the inspection, pressure drop across this baghouse was 2.7 inches of water, gauge. This is typical for this equipment.

### Design or Equipment Parameters

The CEMS and COMS shall be installed, calibrated, maintained and operated in accordance with AQD acceptable procedures. This equipment is installed per these procedures. The span value for the NOx and SO2 CEMS shall be 2.0 times the lowest emission standard or as specified in the federal regulations. This equipment is configured in this manner.

### Testing and Sampling Requirements

Annual verification of PM emission rates from the kiln is required. The last test performed prior to April of 2018 on this equipment was in July of 2017. The Main Stack particulate emission results were 0.15 #/1000# exhaust gases and the Bypass Stack particulate emission results were 0.001 #/1000# exhaust gases. Results of this testing were previously reviewed and documented.

Nickel emission rates while burning 100 percent petroleum coke used as fuel in the kiln is to be evaluated once every five years. The facility has not burned 100% petroleum coke in the last 12 months, therefore, this testing is not required.

Each shipment of asphalt flakes and/or plastic must be verified to be below 121 ppb mercury by weight. Asphalt flake has not been burned at the facility in the last 12 months. Mercury in the plastic fuel is analyzed on a per shipment basis and has demonstrated compliance with the content limit. The last analysis performed on plastic fuel was in January of 2018 and mercury content was below the detection limit for it.

Annual audits of the COMS must be performed. The last audit performed was in May of 2018. Calibration error must be less than or equal to 3%. For the Bypass Stack monitor, low, mid, and high calibration error was 0.67%, 0.18%, and 0.09% respectively. For the Main Stack monitor, low, mid, and high calibration error was 0.79%, 0.21%, and 0.85% respectively.

Each calendar quarter, the permittee shall perform the NOx and SO2 Quality Assurance Procedures of the CEMS. A Cylinder Gas Audit or Relative Accuracy Test Audit is performed on these monitors quarterly. These audits come in as part of the Excess Emissions Reports for the facility. These audits have been previously reviewed and documented.

### Monitoring and/or Recordkeeping Requirements

Feed rate to the kiln in tons of dry feed per hour is measured through a belt scale (Number 557). These measurements are recorded as part of collected production records which were available for review. The accuracy of this belt scale is checked quarterly. Records of this are maintained through a work order system used at the facility. The last certification of this was performed in June of 2017.

Production records also include tracking the tons of clinker produced per hour and per day. These measurements are recorded as part of collected production records which were available for review. Additionally, the amount of clinker produced each day is reported in conjunction with quarterly Excess Emissions Reporting.

The facility employs several continuous emissions monitoring systems (CEMS and COMS) to monitor emissions from the main and bypass stacks. These include sulfur dioxide, nitrogen oxides, and visible emissions (opacity). Data collected by these monitoring systems is required to be recorded in the units of the applicable emission standards (ie. Pound per hour and tons per month for SO<sub>2</sub>). The data systems associated with these monitoring systems performs and records these calculations.

Data regarding emission control equipment is required to be kept. The pressure drop across the baghouse controlling the main stack particulate emissions is recorded once daily and included as part of the reviewed production records. At the time of the inspection, pressure drop across the main stack baghouse was 6.6 inches of water, gauge. This is typical for this equipment.

The facility is allowed to burn certain types of glass, asphalt flake, and non-chlorinated plastics. In the last 12 months, the facility has not used any glass or asphalt and they do not intend to in the future as these materials adversely impact product quality. Plastics have not been burned since April of 2018.

Per the facility Compliance Assurance Monitoring (CAM) plan. The opacity monitoring system (COMS) is utilized as an indicator of proper baghouse function. This COMS is installed and operating. The COMS is also used currently to demonstrate compliance with the facility PM limit. Any times when the COMS has indicated excess emissions or system downtime is reported, reviewed, and documented quarterly. Additionally, any excursion or exceedance and the actions taken to minimize emissions has been reported semiannually, reviewed and documented. Required reporting associated with it has also been reviewed and documented.

### Reporting Requirements

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented. Stack testing protocols, notifications, and reporting have been submitted within AQD timelines. Quarterly excess emissions reporting has been submitted in a timely manner, reviewed, and documented. Daily production of clinker, visibility protection reporting, cylinder gas audits (CGA), and required CAM reporting are submitted quarterly, reviewed, and documented. Relative accuracy test audits (RATA) and reporting regarding Consent Decree Case No. 1:06-cv-607 have been submitted annually, reviewed and documented.

### Stack/Vent Restrictions

The main stack is required to be 323 feet above ground and have a maximum diameter of 132 inches. The bypass stack is required to be 225 feet above ground and have a maximum diameter of 78 inches. These stacks do not appear to have been recently modified and appear to meet this criterion.

### Other Requirements

Prior to February 7, 2018 the facility was to be subject to 40 CFR, Part 60, Subpart DDDD, Commercial and Industrial Solid Waste Incineration (CISWI). After February of 2018, the facility, per 40 CFR 60.2790, notified the AQD that they would be ceasing the burning of non-hazardous waste as fuel and the new kiln would not be subject to 40 CFR 60, Subpart DDDD (CISWI) but rather would be subject to 40 CFR 63, Subpart LLL (PC-MACT).

The current CAM plan at the facility appears adequate, however, given the retrofit of the facility, it may require amendments in the future.

This group is required to be in compliance with Regional Haze Regulations requiring Best Available Retrofit Technology (BART, 40 CFR 52) effective January 1, 2017. The facility has submitted reporting associated with this regulation (visibility protection monitoring and reporting) and appears in compliance with it.

**FGFINISHMILLS** - This Flexible Group deals with pulverizing the cooled clinker after it has left the kiln and cooling areas. The clinker is ground in the mills-which are horizontal steel tubes filled with steel balls. As the tubes rotate, the steel balls tumble and crush the clinker into a superfine gray powder known as Portland Cement. A small amount of gypsum is added during the final grinding to control the set. Emission units for this group include EUFINISHMILL1, EUFINISHMILL2, and EUFINISHMILL3 and control is through baghouses.

#### Emission Limits

Emissions for the individual units in this group are limited to 10% opacity based on a six-minute average. Compliance with this limit is through daily non-certified visible emissions readings and recordkeeping, and a once annually three-hour certified test. A review of these records demonstrates compliance with the limit. A sample of how these records are kept is attached.

#### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

#### Process or Operational Restrictions

An Operation and Maintenance Plan (OMP) and a Startup, Shutdown, Malfunction Plan (SSMP) are required for operation of this equipment. The most recent OMP is dated September of 2009 and the most recent SSMP is dated October of 2007. There is no requirement that these plans be approved, only that the facility drafts and maintains them.

#### Design or Equipment Parameters

There are no design or equipment parameters associated with this unit; therefore, this section is not applicable.

#### Testing and Sampling Requirements

Annual certified visible emissions testing is required for this group. This testing was last performed in August of 2018 and demonstrated compliance. A sample of how these records are kept is attached.

#### Monitoring and/or Recordkeeping Requirements

Daily 6-minute visible emissions test of each emission unit in FGINISHMILLS are performed in accordance with Method 22. Records regarding these readings were available for review. Any abnormal readings are also documented along with any corrective action taken. A sample of how these readings are recorded is attached.

#### Reporting Requirements

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

### Stack/Vent Restrictions

There are no stack or vent restrictions associated with this unit; therefore, this section is not applicable.

### Other Requirements

This group is required to comply with the National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry as specified in 40 CFR, Part 63, Subparts A and LLL (PCMACT). Review of this subpart indicates that if the facility is in compliance with the applicable conditions of this section, they are in compliance with this subpart. There is a requirement to comply with the OMP and SSMP at all times. Deviations from this plan are reported as part of semi annual reporting. This reporting was previously reviewed and documented.

**FGNONKILNFACILITY** - This Flexible Group contains equipment used in the handling the non-kiln materials, non-kiln gasses, non-kiln fuels, and non-kiln dust associated with the production of cement. Included are limestone, bottom ash, fly ash, sand; clinker cooler gasses; coal and petroleum coke; and the finished cement product that is shipped for sale. Emission Units include: EURAWMATHANDSTOR, EUCLINKERHAND, EUCEMENTHAND&STO, EUCOALSYSTEM, EUCKDHANDSTOR

### Emission Limits

Emissions for the individual units in this group are limited to 10% opacity based on a six-minute average. Compliance with this limit is through daily non-certified visible emissions readings and recordkeeping. Particulate emissions from EURAWMATHANDSTOR are limited to 0.15 pounds per thousand pounds of exhaust gas. Compliance with this limit is through visible emissions readings. A sample of how these readings are recorded is attached.

### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

### Process or Operational Restrictions

An Operation and Maintenance Plan (OMP) and a Startup, Shutdown, Malfunction Plan (SSMP) are required for operation of this equipment. The most recent OMP is dated September of 2009 and the most recent SSMP is dated October of 2007. There is no requirement that these plans be approved, only that the facility drafts and maintains them.

### Design or Equipment Parameters

There is a belt conveyor used to move refractory to the kiln system. This conveyor is required to be covered. It is so equipped.

### Testing and Sampling Requirements

There are no testing and sampling requirements associated with this group; therefore, this section is not applicable.

### Monitoring and/or Recordkeeping Requirements

Daily 6-minute visible emissions test of each emission unit in FGFINISHMILLS are performed in accordance with Method 9 or 22 as applicable. Records regarding these readings were available for review. Any abnormal readings are also documented along with any corrective action taken.

### Reporting Requirements

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

### Stack/Vent Restrictions

There are no stack restrictions associated with this group; therefore, this section is not applicable.

### Other Requirements

The facility is required to comply with the National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry as specified in 40 CFR, Part 63, Subparts A and LLL. Review of this subpart indicates that if the facility is in compliance with the applicable conditions of this section, they are in compliance with this subpart. Additionally, they are required to comply with their OMP and SSMP at all times. Deviations from this plan are reported as part of semiannual reporting. This reporting was previously reviewed and documented.

FGALTSAND/SOIL - This flexible group contains equipment for the extraction and screening of alternative sand/soils from the former City of Charlevoix landfill located in the Quarry (alternative sand/soils) and the use of the alternative sand/soils as raw feed to the kiln. Emission Units include EUQUARRYFUGITIVE, EUPRIMARYCRUSH, EUSECONDARYCRUSH, EURAWMILLS, UKILN. Control is through baghouses.

### Emission Limits

There are no emissions limits associated with this unit; therefore, this section is not applicable.

### Material Limits

The materials handled by this group cannot contain more than 1,573 pounds of lead or cadmium both based on a 12-month rolling time period as determined at the end of each month. Compliance with this condition is through one-time testing of this material and subsequent calculations based on the results of that testing and material usage. This material has been completely extracted from the old Charlevoix Landfill and placed in two piles. One pile has been tested and is in use. The other pile remains to be tested as needed. It is anticipated it will take several decades to begin to consume the tested pile given current usage rates. Testing on the current material being used was performed in February of 2011. The results indicated lead content was 478 ppm and Cadmium content was 2.34 ppm. In the last 12 months, the facility used 1200 tons of this material. This calculates out to 1147 pounds of lead and 5.6 pounds of Cadmium.

### Process or Operational Restrictions

A Materials Screening Plan (MSP) is required for the handling of this material. The facility does have a plan in place. However, this material has not been and will not be added to in the future. It has been analyzed per the conditions of the permit and deemed acceptable for use.

### Design or Equipment Parameters

There are no design or equipment parameters associated with this unit; therefore, this section is not applicable.

### Testing and Sampling Requirements

This material has been completely extracted from the old Charlevoix Landfill and placed in two piles. One pile has been tested and is in use. The other pile remains to be tested as needed. It is anticipated it will take several decades to begin to consume the tested pile given current usage rates. Testing on the current material being used was performed in February of 2011. The results indicated lead content was

478 ppm and Cadmium content was 2.34 ppm. In the last 12 months, the facility used 1200 tons of this material. This calculates out to 1147 pounds of lead and 5.6 pounds of Cadmium.

#### Monitoring and/or Recordkeeping Requirements

Records of the amount of alternative material extracted each week are kept and were available for review as was the analysis of the extracted material for lead and cadmium. For the month of August 2018, a total of 1200 tons of this material was extracted and used in the process.

#### Reporting Requirements

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

#### Stack/Vent Restrictions

There are no stack or vent restrictions associated with this unit; therefore, this section is not applicable.

#### Other Requirements

There is criteria listed in the permitting regarding the content of the Material Screen Plan including addressing disposing of unusable material such as large pieces of wood or metal, barrels, batteries, etc. The plan appears to address these items.

FGMACTZZZEMERGENCY - This flexible group includes two compression ignition (CI) existing emergency stationary reciprocating internal combustion engines (RICE) that have a maximum site rating of 500 brake horsepower (HP) (238HP and 68HP) at a major source of hazardous air pollutants (HAPs) and that are subject to 40 CFR, Part 63, Subpart ZZZZ (40 CFR 63.6580-6675), the "RICE MACT". Emission Units include: EUKILNDONKEY, EUEMERGENCYGEN

#### Emission Limits

There are no emissions limits associated with this unit; therefore, this section is not applicable.

#### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

#### Process or Operational Restrictions

There are no time limitations on the emergency operation of these engines. However, for maintenance and readiness checks, the facility is limited to operating them to less than 100 hours. For operation outside of emergency, maintenance, and readiness checks, the facility can operate each engine for up to 50 hours each with the operation time counting towards the 100-hour limit. Compliance with these conditions is through installation of a non-resettable hour meter and recordkeeping. Records review indicates the facility is in compliance with these conditions.

EUKILNDONKEY is no longer at this facility. Prior to removal, the number of hours it ran since installation was less than 500 hours (417 hours). The other two engines, both emergency generators, have not operated in an emergency capacity in the last 12 months. They have been operated for routine maintenance checks for less than one hour per month in the last 12 months.

#### Design or Equipment Parameters

As mentioned above, the engines are required to be, and are, equipped with non-resettable hour meters.

#### Testing and Sampling Requirements

There are no testing or sampling requirements associated with this unit; therefore, this section is not applicable.

### Monitoring and/or Recordkeeping Requirements

A number of records must be kept for each engine including occurrence and duration of malfunctions, maintenance, hours of operation regarding the conditions listed above. Maintenance performed is documented per the facility work order system and these records were available for review. This facility does not use an oil analysis program.

### Reporting Requirements

Annual certifications of compliance and semiannual deviation and MACT compliance reports were previously reviewed and documented.

### Stack/Vent Restrictions

There are no stack or vent restrictions associated with this unit; therefore, this section is not applicable.

### Other Requirements

The facility is required to comply with 40 CFR 63, Subpart ZZZZ. Review of this subpart indicates that if the facility is in compliance with the applicable conditions of this section, they are in compliance with this subpart.

**FGCOLDCLEANERS** - Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

There are a total of three small parts washers located at the facility. All appeared in good condition. All were closed at the time of the inspection and had appropriate signage regarding correct operation. All are serviced by an outside contractor.

**PERMIT TO INSTALL NUMBER 140-15** – This permit is for the installation of new equipment at the facility including a new in line kiln, calciner, and coke mill process. Construction of this equipment began in 2016 and was completed in April of 2018. In February of 2018, the facility, per 40 CFR 60.2790, notified the AQD that they would be ceasing the burning of non-hazardous waste as fuel and the new kiln would not be subject to 40 CFR 60, Subpart DDDD (CISWI) but rather would be subject to 40 CFR 63, Subpart LLL (PC-MACT). Notification that the facility was able to operate at capacity was sent September 4, 2018.

**EUSOLIDFUELSYSTEM** - Solid fuel processing mill to allow for a higher throughput for processing properly sized solid fuels due to increased production capacity. The processed fuel will then be transported to the existing two solid fuel storage silos.

### Emission Limits

Opacity from this equipment is limited to 10%. Compliance with this limit is through a combination of performance testing and daily observations. Particulate matter emissions are limited to 0.010 gr/dscf, PM-10 emissions are limited to 3.93 pounds per hour and PM-2.5 emissions are limited to 1.86 pounds per hour. Compliance with of these limits is through performance testing and visible emissions readings. Performance testing began September 17, 2018. Visible emissions readings are being performed and a sample of how they are documented is attached.

### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

### Process or Operational Restrictions

This process is required to operate within the parameters of the MAP. Per an approval letter (attached) from Janis Ransom, AQD District Supervisor, an updated MAP will be submitted no later than 90 days following notification of startup of the new kiln process. This notification was sent September 4, 2018; therefore, the updated MAP is due no later than December 4, 2018.

### Design or Equipment Parameters

The baghouse controlling this equipment is required to have a bag leak detection system. This baghouse is so equipped. It is required to be operated per the MAP. The MAP for this process is currently under development.

### Testing and Sampling Requirements

Performance testing began September 17, 2018. Visible emissions readings are being performed and a sample of how they are documented is attached.

### Monitoring and/or Recordkeeping Requirements

The facility is required to maintain a log book with items such as maintenance activities, inspection activities, visible emissions observations (if applicable), type of coal processed, amount of coal processed, amount of chemical stabilizers used, fugitive emissions control activities, and records regarding the bag leak detection system. These records were available. However, the form that they are going to be kept in, logbook or other acceptable manner, is currently being developed.

### Reporting Requirements

Notification that this emission unit was able to operate at capacity was sent September 4, 2018.

### Stack/Vent Restrictions

The coke mill stack is to be no less than 119 feet above ground and no greater than 63 inches in diameter. Mr. Schmidt indicated this stack was built to those specifications.

### Other Requirements

This unit is required to comply with the applicable parts of 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation and Processing Plants. A review of the subpart indicates that if the facility is in compliance with the conditions listed in this section, they are in compliance with the applicable conditions of the subpart.

**EUINLINEKILN** – The in-line Raw Mill kiln system uses a proportioning system for grinding and mixing sources of iron, silica, calcium, and alumina. These raw materials are added to the Raw Mill where the material is ground, and heated creating a Kiln Feed mixture, which is conveyed to EUBLENDSILO for blending and storage. Kiln Feed is transferred from EUBLENDSILO via the kiln feed belt scale, elevator, and fed to upper stages of the pre-heating tower. The Kiln Feed is calcined in the preheater tower, the source of heat for this reaction is generated in both the Calciner and Kiln, the Kiln is the location where the feed is heated to a point where the calcined feed is melted and then cooled to start the formation of clinker. A tertiary duct transfers hot exhaust gases from the clinker cooler to the calciner portion of the preheater tower.

Control equipment associated with in-line kiln system includes conditioning towers prior to downstream equipment (for modulating temperatures), SNCR, the main stack baghouse, bypass stack baghouse and other smaller baghouses.

The calciner and kiln have been designed to use traditional solid and liquid fuels and various alternative fuels including asphalt flakes, plastic and small quantities of cellulose fibers. While permitted to do so, connections to feed alternative fuels to the new kiln have not yet been made.

### Emission Limits

Particulate Matter (PM) emissions are limited to 0.25 pounds per 1000 pounds exhaust gas for the main and bypass stacks (each). PM less than 10 microns (PM-10) and PM-2.5 emissions are limited to 57.5 pounds per hour (pph) for the main and bypass stacks (each). Compliance with this is demonstrated through stack testing and a Continuous Emissions Monitor System (CEMS). Testing for PM, PM-10, and

PM-2.5 began the week of September 17, 2018. The CEMS is installed on the Main and Bypass Stacks. Certification testing on this CEMS was performed in August of 2018 and the results are pending.

Sulfur Dioxide (SO<sub>2</sub>) emissions are limited to 1175 pph and 7.5 pounds per ton of clinker produced both as the average of each calendar day's emissions over the time of operation for the combined main and bypass stacks. Compliance with this is demonstrated through a Continuous Emissions Monitor System (CEMS). The CEMS is installed on the Main and Bypass Stacks. Certification testing on this CEMS was performed in August of 2018 and the results are pending.

Nitrogen oxides (NO<sub>x</sub>) emissions are limited to 700 pph as the average of each calendar day's emissions over the time of operation for the combined main and bypass stacks. Also, 2.8 pounds per ton of clinker produced based on a 30-day rolling average and 2.4 pounds per ton of clinker produced based on a 12 month average both for the combined main and bypass stacks. Compliance with this is demonstrated through CEMS. The CEMS is installed on the Main and Bypass Stacks. Certification testing on this CEMS was performed in August of 2018 and the results are pending.

Mercury emissions are limited to 106 pounds per year based on a 12-month rolling time period for the combined main and bypass stacks. Compliance with this is demonstrated through CEMS. The CEMS is installed on the Main and Bypass Stacks. Certification testing on this CEMS was performed in August of 2018 and the results are pending.

Visible emissions from each the main and bypass stacks is limited to 10%. Compliance with this is demonstrated through a Continuous Opacity Monitoring System (COMS). The COMS is installed on the Main and Bypass Stacks. Reporting regarding this system has been previously submitted and reviewed.

#### Material Limits

The facility is allowed to use colored glass, aluminum-based refractory, coal, petroleum coke, recyclable plastics, cellulose fibers, asphalt flakes, fuel oil, and propane in this unit. The facility will not use glass or asphalt as it adversely impacts product quality. The new kiln is not currently configured to feed refractory or plastics to it. Cellulose fibers also are currently not in use. They are not fed independently but rather are the paper labels on some of the recycled plastic. Coal and petroleum coke are the primary fuel for the kiln. Propane and fuel oil are not utilized for production. Rather they are used to cure replaced refractory brick inside the kiln.

#### Process or Operational Restrictions

The facility is not allowed to produce more than 6300 tons of clinker per day based on a 30-day rolling average determined at the end of each day nor more than 6,000 tons of clinker per day based on a 12-month rolling time period as determined at the end of each calendar month. Records regarding this are being kept and were available for review. At the time of the inspection, the facility was averaging 250 tons of clinker per hour which equates to 6000 tons per day.

The baghouse and corresponding pressure drop gauge must be operating when the kiln is in operation. The baghouse pressure drop readings at the time of inspection were averaging 6.6 inches of water, gauge for the Main and 2.7 inches of water, gauge for the Bypass. This is typical for this equipment.

The facility must operate per the MAP. Per an approval letter (attached) from Janis Ransom, AQD District Supervisor, an updated MAP will be submitted no later than 90 days following notification of startup of the new kiln process. This notification was sent September 4, 2018; therefore, the updated MAP is due no later than December 4, 2018.

#### Design or Equipment Parameters

CEMS and COMS have to be installed and operating correctly. Baghouse and SNCR must be operating correctly. The CEMS and COMS are installed and operating on both the Main and Bypass stacks. Reporting associated with these systems is submitted quarterly and indicates proper operation. Certification of the CEMS was performed in September of 2018 and results of it are pending.

The baghouse and SNCR need to be installed and operating. This equipment is installed and operating. COMS data and NO<sub>x</sub> CEMS data indicate they are operating properly.

### Testing and Sampling Requirements

Testing is to be performed for PM, PM-10, PM-2.5, and Hg on the main and bypass stacks. This testing began the week of September 17, 2018.

Verification of chlorine content for plastics is to be performed per shipment. The last analysis for chlorine content was performed January of 2018 and demonstrated a content of 0.247%. The facility currently is not utilizing this material.

### Monitoring and/or Recordkeeping Requirements

Kiln feed rate per hour is to be tracked by weigh scale. This information is being collected. Kiln feed rate at the time of the inspection was 9846 tons of dry feed per hour.

Tons of clinker produced per hour and per day it to be tracked. This information is being recorded. At the time of the inspection, the facility was averaging 250 tons per hour and 6000 tons per day of clinker produced.

There is a COMS system on the Main and Bypass stacks to determine opacity from them. There are also NOx and SO2 CEMS installed on these stacks.

### Reporting Requirements

Excess emissions, monitoring system downtime, and quality assure procedure results for the CEMS and COMS are reported quarterly. These results are reviewed and documented.

Per Consent Order 1:06-cv-607 the facility is required to submit an annual report regarding installation of an indirect firing system and a baghouse on the main stack. This report was last submitted March, 2017. This project was completed in 2006. In December of 2016, the facility requested the order be terminated. This Consent Decree was terminated in April of 2017. A copy of this termination is attached to this report.

The facility has submitted all applicable protocols for stack testing and CEM evaluation in a timely manner. These documents have been reviewed and the review documented. Daily clinker production is submitted with the Excess Emissions Reporting every quarter.

### Stack/Vent Restrictions

The main stack is required to be 323 feet above ground and have a maximum diameter of 132 inches. The bypass stack is required to be 225 feet above ground and have a maximum diameter of 78 inches. These stacks do not appear to have been recently modified and appear to meet this criteria.

### Other Requirements

This unit was to comply with the emission guidelines of 40 CFR Part 60, Subpart DDDD, Commercial and Industrial Solid Waste Incineration (CISWI) units that commenced construction on or before November 30, 1999 upon the February 7, 2018 compliance date. However, on that date, the facility, per 40 CFR 60.2790, notified the AQD that they would be ceasing the burning of non-hazardous waste as fuel and the new kiln would not be subject to 40 CFR 60, Subpart DDDD (CISWI) but rather would be subject to 40 CFR 63, Subpart LLL (PC-MACT). Review of each of these subparts (for pre and post modification of the facility) indicates compliance for the old and reconstructed kilns.

This unit is also required to comply with all applicable requirements of the Regional Haze Regulations requiring Best Available Retrofit Technology (BART) effective January 1, 2017. This essentially requires that the facility monitor for NOx and report quarterly on any excess emissions and monitoring system performance. This reporting has been completed, reviewed, and documented.

EUCLINKERCOOL - The new clinker cooler consists of equipment associated with the cooling of clinker and the treatment of the cooler gases, including: clinker cooler, clinker heat exchanger, and baghouse.

**Emission Limits**

Opacity emissions from this unit are limited to 10% opacity, PM emissions are limited to 0.02 pounds per ton of clinker throughput, and PM10/2.5 emissions are limited to 5.0 pounds per hour. Compliance with the opacity limit is through periodic non-certified visible emission reading. Compliance with PM and PM10/2.5 emission limits is through stack testing, baghouse pressure drop readings, and a PM Continuous Parametric Monitoring System (CPMS). Testing to verify the CPMS was completed in September of 2018 and the results are pending. Visible emissions readings on this equipment are being performed and a sample of how they are documented is attached.

**Material Limits**

There are no material limits associated with this unit; therefore, this section is not applicable.

**Process or Operational Restrictions**

The facility is required to develop a CPMS plan. This plan was developed and the CPMS was evaluated in September of 2018. Results from this evaluation are pending.

**Design or Equipment Parameters**

A baghouse is required to be installed and operating. This baghouse is installed and was operating at the time of the inspection

**Testing and Sampling Requirements**

PM, PM10, and PM 2.5 emissions are required to be tested. This testing is began on September 17, 2018.

**Monitoring and/or Recordkeeping Requirements**

The CPMS is required for the monitoring of PM emissions. This system is installed and operating. Results from it will be validated following results of the performance evaluation for the CPMS. Non-certified visible emissions readings are required to be performed daily. These are being performed and a sample of how they are recorded is attached.

**Reporting Requirements**

The facility is required to submit stack testing reports, excess emissions reports associated with the CPMS, and malfunction reports associated with this equipment. The activities requiring these reports have either been recently completed or not completed yet. Therefore, this requirement has yet to be evaluated.

**Stack/Vent Restrictions**

The stack for the clinker cooler is required to be 134 feet above ground and have a maximum diameter of 132 inches. Mr. Schmidt indicated the stack was 134 feet above ground and has a diameter of 122 inches.

**Other Requirements**

This unit is to comply with all applicable requirements of the federal Standards of Performance for Portland Cement Plants as specified in 40 CFR Part 60 Subparts A and F, and with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry as specified in 40 CFR Part 63, Subparts A and LLL. By complying with the conditions listed in this section, the facility is in compliance with these subparts.

**EUFINISHMILL4** - Horizontal finish mill used to grind clinker with gypsum and other additives to produce cement products. This unit is currently still under construction. It is anticipated to begin operation late fourth quarter of 2018.

**FGNONKILNFACILITY** - This flexible group covers handling the materials, gases, fuels, and dust associated with the production of cement. Included are limestone, bottom ash, fly ash, sand; clinker cooler gases; coal and petroleum coke; and the finished cement product that is shipped for sale. Associated emission units include: EURAWMATHANDSTOR, EUCLINKERHAND, EUCEMENTHAND&STO, EUCOALSYSTEM, EUSOLIDFUELSYSTEM, EUCKDHANDSTOR, EUFINISHMILL4. Particulate emissions from these units is controlled by several baghouses listed as follows:

NEW009 – Raw Mill Blending Silo Extraction  
NEW0009-1 – PH Bucket Tower Inlet  
NEW010 – Top of PH Tower Feed  
NEW013 – Clinker Conveyor  
NEW014 – Clinker Conveyor Transfer  
NEW014-1 – Clinker Conveyor Transfer #2  
NEW015 – Cement Mill 4 Feed Conveyor  
NEW015-1 – Cement Mill 4 Feed Conveyor #2  
NEW015-2 – Cement Mill 4 Feed Conveyor #3  
NEW017 – Cement Air Slides to Cement Cooler  
NEW018 – Cement Silos Feed

#### Emission Limits

Opacity from this group is limited to 10 percent. Compliance with this limit is through monthly 10-minute visible emissions readings. PM10/2.5 emissions from each #15 stack/vent (3) on EUCLINKERHAND are limited to 0.37 pounds per hour (pph). PM10/2.5 emissions from the #17 stack of EUCEMENTHAND&STOR are limited to 0.041 pph. PM10/2.5 emissions from the #18 stack of EUCEMENTHAND&STOR are limited to 0.016 pph. PM10/2.5 emissions from each the #13 and two #14 stack/vent on EUCLINKERHAND are limited to 0.0167 pounds per hour (pph). PM10/2.5 emissions from each the #10 and two #9 stack/vents on EUCLINKERHAND are limited to 0.042 pounds per hour (pph). Compliance with this limit is through monthly 10-minute visible emissions readings. These readings are being conducted and a sample of how they are documented is attached.

#### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

#### Process or Operational Restrictions

An Operation and Maintenance Plan (OMP) is required for operation of this equipment. The most recent OMP is dated September of 2009 and the most recent SSMP is dated October of 2007. There is no requirement to approve this plan, only that the facility drafts and maintains them. Also required is Fugitive Emissions Plan (FEP). The facility has a facility wide fugitive emissions plan on file and the most recent version of it is dated November of 2017 and was approved December of 2017. These plans are currently being updated and will be submitted with the facility ROP renewal application.

The unit is to operate within parameters laid out in the MAP. The MAP is currently under development with an updated copy due December 4, 2018

#### Design or Equipment Parameters

There is a belt conveyor used to move refractory to the kiln system. This conveyor is required to be covered. It is so equipped.

Fabric filter baghouse is required to be installed and operating. This was installed and operating at the time of the inspection.

#### Testing and Sampling Requirements

There are no testing or sampling requirements associated with this unit; therefore, this section is not applicable.

**Monitoring and/or Recordkeeping Requirements**

Non-certified visible emissions readings are required to be performed monthly. These are being performed and a sample of how they are recorded is attached.

**Reporting Requirements**

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

**Stack/Vent Restrictions**

Following are the stack restrictions for this group:

	Max Diameter(inches)	Min Height(feet)
SVNEW009	22	50
SVNEW009-1*	24	24
SVNEW010*	22	288
SVNEW013*	14	24
SVNEW014*	14	47
SVNEW014-1*	14	79
SVNEW015*	30	42
SVNEW015-1*	30	49
SVNEW015-2*	30	60
SVNEW017	24	8.0
SVNEW018	14	56

These stacks/vents appear in compliance with these parameters.

**Other Requirements**

This group is to comply with all applicable requirements of the federal Standards of Performance for Portland Cement Plants as specified in 40 CFR Part 60 Subparts A and F, and with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry as specified in 40 CFR Part 63, Subparts A and LLL. By complying with the conditions listed in this section, the facility is in compliance with these subparts.

FGPROJECT2016 - Upgrades at the existing Portland cement plant to increase the production capacity. A Hybrid applicability analysis was used to determine a non-significant emission increase. Emission units include: EURAWMATHANDSTOR, EUCLINKERHAND, EUCEMENTHAND&STO, EUFINISHMILL4, EUSOLIDFUELSYSTEM, EUCKDHANDSTOR, EUCLINKERCOOL, EUINLINEKILN

**Emission Limits**

There are no emissions limits associated with this unit; therefore, this section is not applicable.

**Material Limits**

There are no material limits associated with this unit; therefore, this section is not applicable.

**Process or Operational Restrictions**

There are no process or operational restrictions associated with this unit; therefore, this section is not applicable.

**Design or Equipment Parameters**

There are no design or equipment parameters associated with this unit; therefore, this section is not applicable.

#### Testing and Sampling Requirements

There are no testing or sampling requirements associated with this unit; therefore, this section is not applicable.

#### Monitoring and/or Recordkeeping Requirements

The facility is required to keep records of annual SO<sub>2</sub> emissions from this group on a tons per calendar year basis. This condition cannot be evaluated until the next scheduled inspection as the facility has only recently finished installation of the new equipment.

#### Reporting Requirements

The facility is required to report records of annual SO<sub>2</sub> emissions from this group on a tons per calendar year basis. This condition cannot be evaluated until the next scheduled inspection as the facility has only recently finished installation of the new equipment.

#### Stack/Vent Restrictions

There are no stack or vent restrictions associated with this unit; therefore, this section is not applicable.

#### Other Requirements

There are no other requirements associated with this emission unit; therefore, this section is not applicable.

**ADDITIONAL REQUIREMENTS UNDER PC-MACT** - In February of 2018, the facility, per 40 CFR 60.2790, notified the AQD that they would be ceasing the burning of non-hazardous waste as fuel and the new kiln would not be subject to 40 CFR 60, Subpart DDDD (CISWI) but rather would be subject to 40 CFR 63, Subpart LLL (PC-MACT).

In addition to their current emission limits PM emissions are limited to 0.02 pounds per ton of clinker produced. Compliance with this limit is through stack testing and CPMS. The CPMS is installed and has been tested. Results are pending. Stack testing began the week of September 17, 2018.

Dioxin and Furan emissions are limited to 0.2 ng/dscm corrected to 7% oxygen. Compliance with this limit is through stack testing. Stack testing began the week of September 17, 2018.

Mercury emissions are limited to 21 pounds per million tons of clinker produced. Compliance with this limit is through recordkeeping and CEMS. The CEMS has been installed and tested. Results are pending.

THC emissions are limited to 24 ppmvd corrected to 7% oxygen. Compliance with this limit is through recordkeeping and CEMS. The CEMS has been installed and tested. Results are pending.

Hydrogen Chloride emissions are limited to 3.0 ppmvd corrected to 7% oxygen. Compliance with this limit is through recordkeeping and CEMS. The CEMS has been installed and tested. Results are pending.

Temperature of the Main and Bypass stacks must be monitored. These temperatures are monitored and recorded. Limits on temperature are to be established during performance testing. This testing began on September 17, 2018.

Other monitoring, recordkeeping, reporting, and operation requirements appear to be similar to those found in the current permitting for the facility.

#### Permit to Install Number 115-15

EUBLENDSILO - Raw feed from the raw mill is transferred to the blending silo where it will be stored and stirred to obtain a more uniform mixture of the various ingredients before it is transferred to the kiln system (at the top of the calciner/preheater). Particulate Matter emissions are controlled by two pulse-jet baghouses at the transfer point of raw feed from the raw mill into the silo and the transfer point of blended and uniform raw feed from the silo out to the conveyance equipment which delivers the raw feed to the top of the calciner/preheater. Completion of construction of this equipment is complete and operation of it began in July of 2017.

#### Emission Limits

Opacity from this unit is limited to 10%. Particulate matter emissions are limited to 0.15 pounds per 1000# of exhaust gases. Compliance with these limits is through non-certified visible emissions readings.

#### Material Limits

There are no material limits associated with this unit; therefore, this section is not applicable.

#### Process or Operational Restrictions

There are no process or operational restrictions associated with this unit; therefore, this section is not applicable.

#### Design or Equipment Parameters

The two baghouses associated with this equipment were in operation at the time of the inspection. These are equipped with bag leak detection.

#### Testing and Sampling Requirements

There are no testing or sampling requirements associated with this unit; therefore, this section is not applicable.

#### Monitoring and/or Recordkeeping Requirements

Monthly 10-minute non-certified visible emissions readings are to be taken at each emission point on this unit. These readings are being taken and a sample of how they are documented is attached.

#### Reporting Requirements

Annual certifications of compliance and semiannual deviation reports were previously reviewed and documented.

#### Stack/Vent Restrictions

The stack for the silo inlet is required to have a maximum diameter of 30 inches and a minimum height of 250 feet. The stack for the silo outlet is required to have a maximum diameter of 22 inches and a minimum height of 32 feet. Mr. Schmidt indicated these were constructed per these parameters.

#### Other Requirements

The permittee shall comply with the applicable provisions of the Federal New Source Performance Standards as specified in 40 CFR Part 60 Subparts A and F, and 40 CFR Part 63 Subparts A and LLL as they apply each emission unit of EUBLENDSILO. Review of these subparts indicates that if the facility is in compliance with the applicable conditions of this section, they are in compliance with this subpart.

At the time of the inspection, the facility appeared in compliance with currently applicable permitting and state and federal air regulations. Emissions testing and monitor testing certification results are still pending but will be reviewed for compliance when received.

NAME 

DATE 9/21/10

SUPERVISOR SN