DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N736264751

FACILITY: GRAYMONT WESTERN LIME INC		**SRN / ID:** N7362
LOCATION: 181 W COUNTY ROAD 432, GULLIVER		**DISTRICT:** Marquette
CITY: GULLIVER		**COUNTY:** SCHOOLCRAFT
CONTACT: Steve White , Plant Manager (9/30/21)		**ACTIVITY DATE:** 07/14/2022
STAFF: Joe Scanlan	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Unannounced inspection to determine compliance with MI-ROP-N7362-2020. The facility was also visited on 8/17/2022 for a stack test and further inspection, and again on 9/13/2022 for an additional stack test.		
RESOLVED COMPLAINTS:		

REGULATORY AUTHORITY

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

PROCESS DESCRIPTION

The Graymont Western Lime Inc. facility began operation in May 2007. The plant calcines the limestone into lime using a single rotary kiln (EU-KILN#1).

The site is adjacent to the Carmeuse Port Inland Limestone Plant, from which it receives limestone via conveyor belt. The limestone is crushed, sized and washed to provide a consistently sized raw material. Raw limestone is unloaded to a stacking conveyor and stockpiled. Stone is then reclaimed by vibrating under pile feeders and moved by conveyor belt to a screen. Screened stone is conveyed to the kiln pre-heater via conveyor belt, where the stone drops from the conveyor through the stone distributor and into the stone bin. From the bottom of the bin, the stone drops into the pre-heater.

Limestone enters EU-KILN#1 via the ram style preheater. The stone is heated as it travels through the kiln. The unit can be fired with a mixture of coal and petroleum coke. The lime then enters a counterflow Neimis style cooler. The plant can produce 870 tons of lime per day, but no more than 292,000 tons per year.

REGULATORY ANALYSES

Graymont Western Lime is considered a major pollution source of Nitrogen Oxides (NOx), Carbon Monoxide (CO), Sulfur Dioxide (SO2), and Hydrogen Chloride (HCl) emissions. The facility operates under Title V Renewable Operating Permit (ROP) MI-ROP-N7362-2020.

EU-KILN#1 emissions testing indicated that hydrochloric acid (HCL) emissions are greater than 10 tons per year, classifying the Port Inland Plant as a major source of hazardous air pollutants (HAPs). Therefore EU-KILN#1 is subject to the NESHAP for Lime Manufacturing Plants promulgated in 40 CFR Part 63, Subparts A and AAAAA. Because EU-KILN#1 was constructed after May 3, 1977, it is subject to the NSPS for Lime Manufacturing Plants promulgated in 40 CFR Part 60, Subpart HH. EU-KILN#1 is also subject to CAM for PM10.

EU-COALPRECRUSHER, EU-COAL HANDLING, and EU-COAL SILO at the stationary source are subject to the Standards of Performance for Coal Preparation and Processing Plants promulgated in 40 CFR Part 60, Subparts A and Y.

EU-AUXENGINE at the stationary source is subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ (RICE MACT). The ROP contains special conditions for applicable requirements from 40 CFR Part 63, Subparts A and ZZZZ.

EMISSIONS

EU-KILN#1: PM10, NOx, SO2 & CO, VOCs, and HAPs emissions generated from process equipment.

The preheater/cooler acts as a sulfur dioxide absorption device. Exhaust gas particulate from the preheater, cooler, and kiln is controlled by a fabric filter dust collector using modular baghouse sections.

The facility operates a continuous opacity monitor (COMS) to verify compliance with the CAM subject PM10 emission limit. The CAM plan establishes an acceptable indicator range of 0-10% opacity. An excursion from the indicator range occurs when the 3-hour block average opacity value exceeds 8%.

EU-HAULING

Fugitive emissions from vehicle traffic in the plant area.

EU-STONE HANDLING

Fugitive emissions from raw limestone handling during conveyance and stockpiling.

COMPLIANCE

Facility was issued a Violation Notice on 6/03/16 for excessive downtime of the CO CEM during the 1st Quarter of 2016. The violation was resolved on 6/30/16.

INSPECTION

On 7/14/22 AQD staff, Joseph Scanlan, arrived at the facility to initiate the ROP compliance inspection and met with Jeff Segerstrum (Production Supervisor). Segerstrum provided a tour of the facility and emission units. AQD staff returned to the facility on 8/16/22 for stack testing and to follow-up with inquiries related to the ROP compliance inspection.

SOURCE-WIDE CONDITIONS

Emission Limit(s)

SC I.1 Visible emissions from the process equipment at the facility shall not exceed 10% opacity:

- In compliance. No visible emissions were observed during the inspection.

SC I.2 There shall be no visible emissions from buildings that contain process stone or coal handling equipment:

- In compliance. No visible emissions were observed during the inspection or during testing on 8/16/22 and 9/13/22.

Material Limit(s)

SC II.1 The permittee shall not process more than 584,000 tons of limestone feed in EU-KILN#1 per year based upon a 12-month rolling time period as determined at the end of each calendar month:

- In compliance. The facility reported 12-month rolling totals of between 357,145 tons to 396,618 tons from 8/01/21 through 7/01/22. 12-month rolling total on 7/01/22 was 396,088 tons of limestone feed

Process/Operational Restriction(s)

SC III.1 The permittee shall not operate the equipment at the facility unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during startup(s), shutdown(s) and malfunction(s). The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices:

- In compliance. The facility has adequate startup, shutdown and malfunction procedures outlined in the Operations, Maintenance & Monitoring Plan (OM&M) that was updated in 2021 as well as a Startup, Shutdown & Malfunction Checklist.

SC III.2 The permittee shall not operate the equipment at the facility unless the AQD District Supervisor has approved a written Operations, Maintenance and Monitoring

(OM&M) plan. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices:

- In compliance. The facility has adequate procedures outlined in the Operations, Maintenance & Monitoring Plan (OM&M) that was updated in 2021.

Monitoring/Recordkeeping

SC VI.1. The permittee shall conduct monthly visible emission checks on all process stone handling operations, buildings and/or any vents. The frequency of these checks may decrease as allowed in 40 CFR Part 63, Subpart AAAAA

- In compliance. Staff are trained to observe and report fugitive emissions from all processes on a regular shift. Per the O&M plan, monthly 1-minute VE checks for each emission unit are performed. If VE are observed during the 1-minute check, a full 6-minute Method 9 test is performed and kept on file. No full 6-minute Method 9 tests have been necessary, therefore there are none on file.
- It should be noted that the material is highly saturated with water when it is conveyed from the Carmeuse facility.

SC VI.2 The permittee shall keep a record of the following information in a format acceptable to the AQD District Supervisor:

a. Calculations determining the total amount of limestone processed for each calendar month and total tons of limestone processed for the most recent 12-month rolling time period as determined at the end of each calendar month:

- In compliance. The facility has provided records from 8/01/21 through 7/01/22 showing total amount of limestone processed monthly and 12-month rolling totals.

b. Visible emission checks on all process stone handling operations, buildings and/or any vents.

- The facility did not have records of regular VE checks, however the material is highly saturated with water during stone handling operations. The records requirement was discussed with the facility and they well start conducting regular VE checks.

Reporting

SC VII.1 Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A:

- In compliance. The facility is prompt about reporting deviations as referenced in their annual and semi-annual compliance reports.

SC VII.2 Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30:

- In compliance. The facility is timely in submitting Semi-Annual reports. The most recent semi-annual certification report was received 9/14/22.

SC VII.3 Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year:

- In compliance. The facility is timely in submitting annual certification reports. The most recent annual certification report was received 3/15/22 for 2021.

EU-KILN#1
Emission Limits

Pollutant	Limit	Actual
PM10	**7.5 pounds/hr (Test Protocol)**	**0.36 lb/hr (stack test done October 10 &11, 2017)**
PM10	**0.1 pounds (per ton of stone feed)**	**0.0112 pounds/ ton of feed (stack test done October 10 & 11, 2017)**
PM10	**29.2 tons (12 month rolling time period)**	**15.29 tons rolling August 2022 (all records are attached to the hard copy of this report)**
NOx	**132.6 pounds/hr (24 hour rolling average)**	**51.73 lbs/hr (9/19 test)**
NOx	**532 tons (12 month rolling time period)**	**243.1 tons rolling July 2022**
SO2	**60.2 pounds per hour (test protocol)**	**4.2 lbs/hr July 2022**

SO2	**242 tons/year (12 month rolling time period**	**19.1 tons rolling July 2022**
CO	**113.2 pounds per hour (24 hour rolling average)**	**45.9 lb/hr (8-17-22 @ 23:00 hrs)**
CO	**456 tons (12 month rolling time period)**	**193.5 tons rolling July 2022**
Visible Emissions	**10 percent Opacity**	**0% observed during inspection; 0% reported on facility reports**

Formula used to calculate SO2 emissions:

[Coal used (tons/day)]*([Sulfur Content_%]/100)*(1-0.955)*(64/32)

Coal used (tons/day): Taken from belt scale daily totalizer

([Sulfur Content %]/100): Taken from monthly coal testing

(1-0.955): amount of sulfur not removed by the lime. Based on stack testing performed November 7, 2007, the kiln achieved a removal efficiency of 95.5% of the sulfur input during the test.

(64/32): stoichiometric conversion of the sulfur to SO2. Fuel sampling results are in % sulfur

Material Limits

SC II.1 The permittee shall not process more than 584,000 tons of limestone feed in EU-KILN#1:

- In compliance. The facility reported 12-month rolling totals of between 357,145 tons to 396,618 tons from 8/01/21 through 7/01/22. 12-month rolling total as of 7/01/22 was 396,088 tons of limestone feed.

SC II.2 The permittee shall only burn No. 2 Fuel Oil, propane, coal, or coal combined with petroleum coke in EU-KILN#1:

- In compliance. The facility operates EU-KILN#1 only on coal.

SC II.3 The combined coal and petroleum coke sulfur content of the fuel shall not exceed 2.5% by weight based upon a monthly average

- In compliance. Weighted average percent sulfur reported in the 2022 2nd Quarter Fuel Sampling & Analysis report is 0.42%.

Process/Operational Restrictions

SC III.1 The permittee shall not operate EU-KILN#1 during periods of startup, while bypassing the baghouse unless the kiln is burning only No. 2 fuel oil or propane and there is no stone feed to EU-KILN#1

- In compliance. The facility only fires EU-KILN#1 on fuel oil during startup; no stone is feed to the unit until it is up to operating temperature.

SC III.2 The permittee shall not operate EU-KILN#1 unless an acceptable plan that describes how emissions will be minimized during all startups, shutdowns, and malfunctions has been submitted to the AQD District Supervisor. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices:

- In compliance. Startup, shutdown and malfunction emission minimization procedures are detailed in the OM&M plan and also the Startup, Shutdown and Malfunction Checklist.

Design/Equipment Parameters

SC IV.1 The permittee shall install maintain, calibrate and operate in a satisfactory manner a device to monitor and record the NOx and CO emissions at the outlet of the control device from EU-Kiln#1 on a continuous basis:

- In compliance. The facility has Continuous Emissions Monitor System (CEMS) installed and operating properly.
- CO emissions observed from CEMS during inspection on 7-14-22
  - 1-minute average 38.5 lbs/hr
  - 1-hr average 39.7 lbs/hr
  - 24-hr average 40.4 lbs/hr
- NOx emissions observed from CEMS during inspection on 7-14-22
  - 1-minute average 62.6 lb/hr
  - 1-hr average 60.6 lb/hr
  - 24-hr average 66.4 lb/hr

SC IV.2 The permittee shall operate EU-KILN#1 with a fabric filter collection system which is installed, maintained, and operated in a satisfactory manner:

- In compliance. The baghouse is installed and operating satisfactorily. The baghouse has 6 separate modules, each with its own differential pressure gauge. Differential pressure readings of all baghouse modules are conducted twice-daily (once per shift) and maintenance inspections are conducted weekly.

SC IV.3 The permittee shall install, maintain, calibrate and operate in a satisfactory manner, a COM system according to the procedures outlined in 40 CFR Part 60, Appendix B, Performance Specification 1:

- In compliance. The facility has installed a COMs. The COMs has had minor deviations on all recent semi-annual certification reports. Deviations are due to repairs and maintenance.
- Opacity observed from COMs during inspection on 7-14-22
  - Actual 0.16%
  - 1-minute average 0.29%
  - 6-minute average 0.17%

SC IV.4 The permittee shall not operate EU-KILN#1 unless the preheater is installed, maintained, and operated in a satisfactory manner:

- In compliance. Preheater is installed and operating satisfactorily.

Testing/Sampling

SC V.1 The permittee shall verify particulate emission rate and the stone feed rate from EU–KILN#1 by testing, at owner's expense, in accordance with Department requirements. Testing must be done operating as reasonably close to operating capacity as possible. Visible emission observation procedures, particulate emission rate testing procedures and the stone feed measurement procedures must have prior approval by the AQD. Verification of visible emissions and particulate emission rates includes the submittal of a complete report of opacity observations and particulate emission rate test results to the AQD within 60 days following the last date of the evaluation.

- In compliance. At the time on inspection the facility is in compliance with testing requirements of SC VI.1.

Pollutant	Limit	Actual
PM10	**7.5 lbs/hr**	**0.36 lbs/hr (October 10 & 11 2017 stack test results)**
PM10	**0.1 lbs/per ton of stone feed**	**0.0112 lbs/ton of feed (October 10 & 11 2017 stack test results)**

- Most recent PM and VE testing were 9/13/22. The facility was operating at near maximum operating throughput for stone feed, approximately 33-34 tons per hour for each test run completed.

SC V.5 The permittee shall conduct an analysis of the combined coal and petroleum coke, in a manner acceptable to the AQD, to determine the sulfur content and higher heating value. The analysis shall be performed for each shipment of coal and petroleum coke received.

- In compliance. The facility conducts SO2 analysis of coal monthly and includes a Fuel Sampling & Analysis Report with each quarterly Excess Emission Report.
- SO2 weighted average from the most recent report submitted was 0.42% SO2.
- Monthly SO2 content is used in calculations for SO2 compliance monitoring

SC V.6. The permittee shall monitor and record the differential pressure of the baghouse during testing:

- In compliance. Baghouse module differential pressure readings are continuously recorded and recorded manually once per shift.
- Differential pressure readings recorded during the testing on 8-17-22
  - Module 1: 3.7”
  - Module 2: 6.0”
  - Module 3: 5.1”
  - Module 4: 4.4”
  - Module 5: 5.1”
  - Module 6: 5.4”

Monitoring/Record Keeping

SC VI.1 The permittee shall monitor and record visible emissions from EU-KILN#1 on a continuous basis. The continuous opacity monitoring system (COMS):

- In compliance. COMS was installed and operating properly.
- Opacity observed from COMs during inspection on 7-14-22
  - Actual 0.18%
  - 6-minute average 0.18%
- COMs report for 8/17/22 is attached to this report.

SC VI.2 The permittee shall monitor and record NOx and CO emissions from EU-KILN#1 on a continuous basis. The continuous emissions monitoring systems (CEMS):

- In compliance. The facility has Continuous Emissions Monitor System (CEMS) installed and operating properly.
- CO emissions observed from CEMS during inspection on 7-14-22
  - 1-minute average 38.5 lbs/hr
  - 1-hr average 39.7 lbs/hr
  - 24-hr average 40.4 lbs/hr
- NOx emissions observed from CEMS during inspection on 7-14-22
  - 1-minute average 62.6 lb/hr
  - 1-hr average 60.6 lb/hr

    - 24-hr average 66.4 lb/hr
- CEMS reports for both NOx and CO from 8/17/22 are attached to this report.

SC VI.3 The permittee shall keep, in a satisfactory manner, 24-hour rolling average pound per hour NOx and CO emission records and 12-month rolling time period NOx and CO emission records for EU-KILN#1:

- In compliance. CEMS was installed and operating properly. 24-hour rolling average and 12-month rolling average CEMS reports for both NOx and CO from 8/17/22 are attached to this report.

SC VI.4 The permittee shall install and maintain a device to determine the daily amount of fuel consumed by EU-KILN#1:

- In compliance. The facility monitors the daily amount of fuel. Daily coal usage for July 2022 is attached to this report.

SC VI.5 The permittee shall keep a written record of the following information for EU-KILN#1:
Daily recording of the pressure drops across the fabric filters:

- In compliance. The facility is recording the pressure drops twice daily. Dust collector differential pressure readings for 8/17/22 are attached to this report.

Monthly calculations, determining the pounds per hour emission rate based upon a monthly average for SO2:

- In compliance. Monthly average from 8/21 through 7/22 ranged from 4.09 lb/hr to 5.0 lbs/hr. Monthly average for July 2022 was 4.2 lbs/hr. Records are attached to this report.

Calculations determining the mass emission rate in tons per year for SO2:

- In compliance. 12-month rolling mass emission rate from 8/21 through 7/22 ranged from 17.9 tpy to 19.2 tpy. 12-month rolling total for July 2022 was 19.1 tpy. Records are attached to this report.

Daily records of the coal/petroleum coke samples (date, time, weight) and the amount of No. 2 Fuel Oil, propane, and/or coal/petroleum coke used:

- In compliance. Daily coal sample record for 9/07/22 and amount of coal usage record for July 2022 are attached to this report.

Records determining the combined average monthly sulfur content of the coal and petroleum coke:

- In compliance. Average monthly sulfur content of coal from 8/21 through 7/22 ranged from 0.37 to 0.45%. Average monthly sulfur content of coal for 7/22 was 0.42%. Records are attached to this inspection report

The hours of operation for the lime kiln per month and 12-month rolling time period as determined at the end of each month:

- In compliance. 12-month rolling hours of operation of the kiln from 8/21 through 7/22 ranged from 636.6 to 744.0 hours.
- 12-month rolling hours of operation for July 2022 was 744.0 hours. Records are attached to this inspection report.

The hours of operation per month and 12-month rolling time period which the kiln was operated during startup, shutdown, and upset conditions:

- In compliance. Kiln startup/shutdown/malfunction data is recorded in minutes and stored using WinLIMS software. Hours of startup, shutdown and upset conditions are reported quarterly along with the Excess Emission Report. For the 2nd quarter of 2022, 48 minutes of startup/shutdown/malfunction were reported. This was 0.04% of total operating time.

SC VI.6 The permittee shall calculate the PM10 emissions in tons per year on a monthly and 12-month rolling time period basis as determined at the end of each calendar month. The most recent stack test results, or emission factors acceptable to the AQD, shall be used to calculate the pollutant emissions:

- In compliance. Based on the stack test conducted 10/2017, monthly PM10 emissions for August 2022 were 1.37 tons. 12-month rolling PM10 emissions at the end of August 2022 were 15.29 tons (limit 29.2 tons).

SC VI.7 The permittee shall calculate and keep, in a satisfactory manner acceptable to the AQD, records of limestone feed in EU-KILN#1 in tons per year on a monthly and 12-month rolling time period basis as determined at the end of each calendar month:

- In compliance. Limestone feed rate for August 2022 was 36,583 tons. 12-month rolling total at the end of July 2022 was 396,088 tons. Records are attached to this report.

SC VI.8 The permittee shall continuously monitor and record, in a satisfactory manner, the daily limestone feed rate to EU-KILN#1:

- In compliance. Records for July 2022 daily limestone feed rate are attached to this report.

SC VI.9 The permittee shall keep records of the determinations of the BTU/hr heat input rates of coal to EU-KILN#1:

- In compliance. BTU/hr heat input is determined as part of the monthly coal analysis.

SC VI.10 The permittee shall keep records of monthly coal consumption rates by EU-KILN#1:

- In compliance. Monthly coal consumption records were provided for 8/21 through 7/22 as part of the SO2 compliance monitoring spreadsheet. Records are attached to this report.

SC VI.11 The permittee shall utilize COM-recorded opacity as an indicator of the proper operation of the dust collector. The indicator range of opacity defining proper function of the dust collector is 0-10%. Six-minute average values shall be based on 36 or more equally spaced instantaneous opacity measurements per six- minute period:

- In compliance. The facility has a COMs installed and provided the Daily 6-Minute Report for 8/17/22 showing opacity is well-below 1%. Records are attached to this report.

SC VI.12 The opacity monitor shall continuously monitor opacity. The averaging period is 6 minutes. The monitor shall be calibrated quarterly.

- In compliance. AQD staff observed the COMs continuously monitoring while in the control room at the facility. The facility provided the Daily 6-Minute Report for 8/17/22 showing opacity is well-below 1%. COMs calibration records are submitted with quarterly Excess Emissions Reports. In the 2nd quarter of 2022, the COMs was calibrated on 4/07/22. Records are attached to this report.

SC VI.15 Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the facility shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating:

- In compliance. AQD staff observed actual continuous monitoring of NOx, CO and opacity while in the control room.

SC VI.17 The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions:

- In compliance. The facility is adequately maintaining records of monitoring, performance, and corrective action data.

Reporting

SC VII.1 Prompt reporting of deviations:

- In compliance. Last report received 9/14/22.

SC VII.2 Semiannual reporting of monitoring and deviations:

- In compliance. Last report received 9/14/22.

SC VII.3 Annual certification of compliance:

- In compliance. Last report received 3/15/22.

SC VII.4 The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office.

- In compliance. Reports received for all performance tests and RATAs within the 60-day time frame.

SC VII.5 In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an Excess Emission Report (EER) and/or the Summary Report in an acceptable format to the AQD within 30 days following the end of each calendar quarter for NOx, CO, and Opacity:

- In compliance. Last report received was 7/21/22.

SC VII.6 Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances:

- In compliance. Monitoring and deviation information submitted is adequate.

SC VII.7 Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime:

- In compliance. Monitor downtime summaries are included in the semiannual reports.

EU-HAULING

Emission Limit

Pollutant	Limit	Actual
Visible Emissions	5% Opacity (6-minute average)	0% (Observed during inspection)

Process/Operation Restriction

SC III.1 The permittee shall not operate EU-HAULING unless the program for continuous fugitive emissions control for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix 9 has been implemented and is maintained:

- In compliance. The Fugitive Dust Management Plan in Appendix 9 has been implemented and is maintained.

EU-STONE HANDLING
Emission Limit

Pollutant	Limit	Actual
Visible Emissions	5% Opacity (6-minute average)	0% (Observed during inspection)

SC III.1 The permittee shall not operate EU-STONE HANDLING unless the program for continuous fugitive emissions control for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix 9 has been implemented and is maintained:

- In compliance. The Fugitive Dust Management Plan in Appendix 9 has been implemented and is maintained.

FG-BAGHOUSES
SC I.19 Visible emissions from baghouse 161 and baghouse 162 shall not exceed 5% opacity:

- In compliance. No visible emissions were observed from baghouses 161 & 162.

SC I.20 Visible emissions from each baghouse associated with FG-BAGHOUSES (except baghouse 161 and baghouse 162) shall not exceed 10%:

- In compliance. No visible emissions were observed from any of the baghouses at the facility.

Monitoring/Recordkeeping

SC VI.1 The permittee shall monitor in a satisfactory manner the condition of dry filter particulate control system through visual inspection (or other program proposed by the permittee) on a weekly basis during operation. The permittee shall keep in a satisfactory manner records of visual inspections of the dry filter particulate control system which includes the dates and results of the inspections and the date and reasons for repairs:

- In compliance. Records of the Weekly Dust Collectors Inspection Log for 9/23/22 were provided and are attached to this report.

FG-NSPS-Y

Emission Limit

Equipment	Pollutant	Limit	Actual
Coal Pre-Crusher	Visible Emissions	10% Opacity (6 Minute average)	0% observed while onsite
Coal-Handling & Coal-Silo	Visible Emissions	20% Opacity (6 Minute average)	0% observed while onsite

Testing/Sampling

SC V.1 through V.4

- In compliance. Method 9 Visible Emissions testing required every 5 years. The most recent test was completed on 8/16/22. AQD does not have official test report at this time however TPU and District staff were on site during testing and no visible emissions were detected.

Monitoring/Recordkeeping

SC VI.1 The permittee shall monitor visible emissions using daily, 15-second Method 22 visible emissions test and Method 9 observations within 45 operating days of when visible emissions are observed (if any).

SC VI.2 The permittee shall conduct monthly visible emissions observations, using corrective maintenance if needed.

- In compliance. Staff are trained to observe and report fugitive emissions from all processes on a regular shift. Per the O&M plan, monthly 1-minute VE checks for each emission unit are performed. If VE are observed during the 1-minute check, a full 6-minute Method 9 test is performed and kept on file. No full 6-minute Method 9 tests have been necessary, therefore there are none on file.

FG-NSPS-HH
Emission Limits

Pollutant	Limit
PM	0.60 lb/ton of stone feed

Design/Equipment Parameters

SC IV.1 The permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from EU-KILN#1.

- In compliance. A COMs is installed, calibrated, maintained and operated satisfactorily.

FG-RICEMACT
Process/Operational Restrictions:
SC III.1 Each engine in FG-RICEMACT shall be installed, maintained, and operated in a satisfactory manner:

The following are the recommended work practices specified in 40 CFR Part 63, Subpart ZZZZ, Table 2c:

Change oil and filter every 1000 hours of operation or annually, whichever comes first, except as allowed in SC III.2;

Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- In compliance. Maintenance records are attached this report.

SC III.2 The permittee may utilize an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency as oil changes are required.

- In compliance. The facility opts to utilize oil analysis to extend specified oil changes. Last oil analysis was conducted 5/26/22. Maintenance records are attached this report.

SC III.3 The permittee shall install, maintain and operate each engine in FG-RICEMACT and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

- In compliance. The facility conducts regular maintenance on the engine. There is no after-treatment control device installed. Maintenance records are attached this report.

Monitoring/Recordkeeping
SC VI.1 For each engine in FG-RICEMACT the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request:

- In compliance. Maintenance records are attached this report.

FG-MACT-AAAAA
Emission Limits

Pollutant	*Limit*	*Actual*
PM	**0.10 lb/ton of stone feed; 0.05 grams per dry standard cubic meter**	**0.0112 lb/ton of feed (stack test October 10 & 11, 2017)**
Visible Emissions	**7 % (6-minute average) stack or building vent emissions from FGFACILITY**	**No visible emissions during my inspection**
Visible Emissions	**10% (6-minute average) Fugitive emissions from**	**No visible emissions during my inspection**

	operations associated with FGFACILITY that are not enclosed in a building		
Visible Emissions	No Visible emissions or 0% Fugitive emissions from the building containing operations associated with FG-Facility except for emissions from a vent	No visible emissions during my inspection	

Process/Operational Restriction(s)

SC III.2 In lieu of using a bag leak detection system (BLDS) or particulate matter (PM) detector, the permittee shall maintain the baghouse such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in 40 CFR 63.7113(f)

- In compliance. The facility has bag leak detection systems installed on all baghouses onsite.

SC III.3 The permittee shall be in compliance with the opacity and visible emission limits in 40 CFR Part 63, Subpart AAAAA during the times specified in 40 CFR Part 63.6 (h)(1):

- In compliance. The facility routinely maintains opacity and VE limits except during startup/shutdown/malfunctions.

SC III.4 The permittee shall submit to the AQD District Supervisor, for review and approval, a written Operations, Maintenance and Monitoring (OM&M) Plan for the facility. Any subsequent changes to the plan must be submitted to the AQD District Supervisor for review and approval.

- In compliance. The Facility has an adequate OM&M plan that was updated in 2021. The plan is attached to this report.

SC III.5 The permittee shall develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan in accordance with 40 CFR 63.6(e)(3).

- In compliance. The facility has an SSM Plan updated in 2013. The plan is attached to this report. SSM procedures are also documented in the OM&M plan and on checklists.

Testing/Sampling

SC V.1 The permittee shall conduct a performance test within five (5) years of the date

of the last performance test to demonstrate compliance with the particulate matter emissions limit in 40 CFR 63.7090(a), following the test methods and procedures in 40 CFR 63.7112. Subsequent compliance testing shall be conducted no less frequently than every five years

- In compliance. The most recent testing was completed 9/13/22. AQD has not received the results from the test at this time. Test results are due by 11/13/22.

Monitoring/Recordkeeping

SC VI.1 For each emission unit equipped with an add-on air pollution control device, the permittee shall inspect each capture/collection and closed vent system, at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in SC III.6 and record the results of each inspection:

- In compliance. The facility conducted the last inspection on 3/30/22. The Log-Kiln Dust Collector & Processed Stone Handling System inspection is attached to this report.

SC VI.2(a) through VI.2(f) The permittee shall keep records required for AAAAA compliance:

- Not all records were requested. SSM, performance testing, opacity observations, and continuous emission limit compliance were reviewed and deemed in compliance.

SC VI.3 A continuous parameter monitoring system (CPMS) is installed and operating properly.

- In compliance. The facility operates a CEMS and a COMS on KILN#1.

SC VI.4 For each flow measurement device, the permittee must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of 40 CFR 63.7113:

- Based on records provided and reviewed the facility appears to be in compliance with the MACT requirements.

SC VI.5 For each pressure measurement device, the permittee must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of 40 CFR 63.7113:

- Based on records provided and reviewed the facility appears to be in compliance with the MACT requirements.

SC VI.6 For each PSH operation subject to an opacity limit as specified in 40 CFR Part 63, Subpart AAAAA, and any vents from buildings at the facility subject to an opacity limit, the permittee must conduct a visible emissions check:

- In compliance. VE observations are conducted in accordance with Subpart AAAAA.

CONCLUSION

Based on the inspection and records reviewed, Graymont Western Port Inland appears to be in compliance with MI-ROP-N7362-2020.

NAME  DATE 10-24-2022 SUPERVISOR