

B3291
MANIA

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

B329163962

FACILITY: GIBRALTAR NATIONAL CORP / QUIKRETE DETROIT		SRN / ID: B3291
LOCATION: 8951 SCHAEFER, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT:		ACTIVITY DATE: 08/08/2022
STAFF: Jill Zimmerman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION : August 8, 2022
 TIME OF INSPECTION : 9:30 am
 INSPECTED BY : Jill Zimmerman
 PERSONNEL PRESENT : Christopher Jurs, Regional Manager
 FACILITY PHONE NUMBER : 313-491-3500 x161
 EMAIL CONTACT : Christopher.Jurs@quikrete.com

FACILITY BACKGROUND

Gibraltar National Corporation (GNC) manufactures ready mix concrete and mortar, operating as a supplier to home improvement stores. GNC operates a sand dryer that prepares the sand and gravel for the mixing and bagging operation. The facility began operating at this location in 1960. Currently the facility is operating one shift per day, five days per week.

PERSONAL PROTECTION EQUIPMENT

During the onsite inspection I wore safety shoes, a safety vest, safety glasses and a hardhat.

COMPLAINT/COMPLIANCE HISTORY

No complaints have been received regarding this facility.

OUTSTANDING VNs

A violation notice was issued on February 14, 2019. This violation was resolved when proper recordkeeping was verified.

PROCESS EQUIPMENT AND CONTROLS

Wet sand of approximately 6% moisture is fed via a wet feed hopper to a bucket elevator. The elevator discharges into the inlet side of a counter-flow natural gas fired rotary kiln drier. The

dust laden exhaust gas is ducted into a pulse jet baghouse. The bags are visually inspected about every other week, replacing any damaged bags. A black light inspection of the bags occurs about once per quarter. The baghouse has 144 bags. A second baghouse is a dust hog that collects the plant air. This baghouse is exempt from permitting by Rule 285 (f) and operates with 48 cartridges.

INSPECTION NARRATIVE

I arrived at the facility to perform a scheduled inspection. The purpose of my inspection was to verify that the facility was operating according the Opt-Out permit including proper recordkeeping. No changes have been made to the process since the last inspection. While setting up this inspection, Mr. Jurs sent an electronic copy of the facilities records. The facility has implemented a monthly checklist for the baghouses. This log was reviewed during the onsite inspection.

Next, we walked through the facility. The dryer was installed in 1960, and no modifications have been made to the dryer since it was installed. Minimal dust was observed on the roadways at the plant. The facility has a contact with a sweeping company to sweep the street about once per week. No changes have been made to the dryer line and no changes are planned for this line other than minor replacement of the conveyor lines.

There are some older storage silos and elevators located onsite. The facility is no longer using the silos and plans to remove this equipment in the future.

APPLICABLE RULES/PERMIT CONDITIONS

The facility is currently operating under Wayne County Permits C-11033, C-11034 and C-11035 for the installation of a wet scrubber for calcium chloride bagging stations and the installation of a sand dryer with a baghouse dust collector. These permits were issued on March 18, 1996. The special conditions for these permits are:

Calcium Chloride Bagging Station

Conditions 17 through 24 were not evaluated because this equipment has been removed from the facility.

Sand Dryer

25. Compliance – Based on the review of the 2021 MAERS, the facility emitted less than 1 ton of NOx in 2021. This is less than the annual limit of 5.78 tons per year.

26. Undetermined – During the onsite inspection, the dryer was not operating due to a product. Therefore, no visible emission reading could occur to evaluate compliance with the 5% opacity limit.
27. Compliance – The facility operates two baghouses. The bags are inspected regularly, including a black light inspection about once per quarter. The facility keeps some replacement bags onsite. The operators complete a monthly inspection checklist for the baghouses. This record was reviewed during the onsite inspection.
28. Compliance – The stacks have not been modified. According to what is reported in MAERS, the stacks were built to acceptable height and diameter.
29. Compliance – A snapshot of the monthly records is attached to this report. Based on MAERS, the dryer operated for 1,741 hours in 2021, which is less than the permitted limit of 3,640 hours per year.
30. Compliance – A snapshot of the monthly records is attached to this report. Based on MAERS, 41,757 tons of sand was dried, which is less than the permitted limit of 156,520 tons per year.
31. Undetermined – During the onsite inspection, the feed hopper was not being used because of a product change. Therefore, no visible emission readings could occur to evaluate compliance with the 5% opacity limit.
32. Compliance – Based on the emissions reported in MAERS for 2021, the facility emitted less than 1.8 tons PM during 2021, which is less than the permitted limit of 2.34 tons per year.
33. NA – No stack testing is requested at this time.
34. Compliance – Dust was present on the roadways of the facility, though no clouds of dust were observed as vehicles traveled on these roadways. The facility hires a third-party company to sweep the roadways. Records of sweeping activity are attached to this report. Typically, the lot is swept weekly and the records are updated monthly.
35. Compliance – The facility is aware of the dust potential at this location. The facility hires a water truck to sweep the lot at least once per week, or more frequently as needed. During the onsite inspection, the dust appeared to be adequately controlled, with minimal track out observed onto Schaffer Highway.
36. Compliance – Sweeping records were reviewed during the onsite inspection.

Formerly, this facility limited emissions to remain out of the Title V program by Rule 208A before this rule has been rescinded. The facility is currently operating under Opt-Out permit 205-16. The special conditions for FG-FACILITY are evaluated below:

- I. Emission Limits – Compliance. Monthly and 12-month rolling time period emission records are attached to this report. Based on these records, the facility emitted about 5 tons PM per year on a 12-month rolling time period for at least the past year and a half, which is lower than the permitted limit of 40 tons PM. The facility released about 2 tons of PM10 per year on a 12-month rolling time period for at least the last year and a half, which is less than the permitted limit of 8 tons PM10. The facility emitted less than a ton of PM 2.5 per year on a 12-month rolling time period, which is less than the permitted limit of 1.5 ton PM2.5. The facility emitted less than a ton of VOC per year on a 12-month rolling time period for the past year and a half, which is less than the permitted limit of 25 ton VOC.
- II. Material Limits
 1. Compliance – Based on the 2021 MAERS, the facility processed 47,757 tons of aggregate in 2021, which is less than the permitted limit of 65,000 tons.

2. Compliance –Based on the salt purchased records attached to this report, the facility processed 3,009 tons of salt during 2021, which is less than the permitted limit of 30,000 tons.
 1. Process / Operational Restrictions – Compliance. The facility hires a third-party company to water the roadways as needed. The dust appeared to be well controlled during my onsite inspection and sweeping records are attached to this report.
 - II. Design / Equipment Parameters
 1. Compliance – Fabric filters were in place during the onsite. These filters are routinely maintained, and extra bags are located onsite should a malfunction occur.
 2. Compliance – The filters are in place and appear to be operating properly for the bagging station. The filters are inspected regularly with spare bags stored onsite for malfunctions.
 3. Compliance – The fabric filters are installed and appear to be operating properly.
 4. Undetermined – The pressure monitoring device on the dust collector was not inspected.
 5. Undetermined – The pressure monitoring device on the cartridge filter was not inspected.
 1. Testing / Sampling – NA
 - II. Monitoring / Recordkeeping
 1. Compliance – Records were up to date and readily available for my review during the onsite inspection.
 2. Compliance – The facility monitors the pressure once a month and records this information on a monthly baghouse checklist which was reviewed during the onsite inspection.
 3. Compliance – The facility inspects all the dust collectors once a month and records any maintenance in a maintenance log.
 4. Compliance – The facility records all maintenance activities associated with the dust collectors in a maintenance log.
 5. Compliance – The facility hires a third-party to water and sweep the roadway and parking area. Billing statements were available for review to demonstrate the frequency of the roadway maintenance.
 6. Compliance – Monthly and 12-month rolling time period records for the amount of aggregate dried is properly maintained.
 7. Compliance – Monthly and 12-month rolling time period records for the raw materials purchased are being properly maintained. A copy of this record is attached to this report.
 8. Compliance – Monthly and 12-month rolling time period are properly maintained and were reviewed as part of this inspection.
 9. Compliance – Monthly and 12-month rolling time period records are being maintained for the PM, PM10, PM2.5 and VOC emission rates. A copy of this record is attached to this report.
 1. Reporting – NA
 - II. Stack / Vent Restrictions – NA
 - III. Other Requirements – NA

MAERS REPORT REVIEW

This report was received on time on March 24, 2022. The emissions are supported by data submitted with this report. The calculations of emissions appear to have been reported accurately.

FINAL COMPLIANCE DETERMINATION

Gibraltar National Corporation appears to be operating in compliance with permit 205-16.

NAME 

DATE 8/25/2023 SUPERVISOR JK