

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

D006670743

FACILITY: Quarrystone, Inc. dba BICHLER Concrete & Gravel		SRN / ID: D0066
LOCATION: 6851 COUNTY 426 M.5 RD, ESCANABA		DISTRICT: Marquette
CITY: ESCANABA		COUNTY: DELTA
CONTACT: Cory Pangborn , President (2018)		ACTIVITY DATE: 12/21/2023
STAFF: Drew Yesmunt	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Targeted Inspection FY24		
RESOLVED COMPLAINTS:		

Facility: Bichler Concrete & Gravel (SRN: D0066)

Location: 6851 County 426 M 5 Rd, Escanaba, Delta County, MI

Contact(s): Cory Pangborn, President; Dan Frazer, Yard Foreman

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.

Facility Description

Bichler Concrete & Gravel is a limestone quarry and concrete plant located approximately four miles north of Escanaba, MI. The facility's crushing operation processes approximately 200,000 tons of material on a yearly basis, and largely processes quarry stone, pit run gravel, and sand. The facility operates its crusher from spring to fall and operates the concrete plant year-round.

Bichler began operation in 1900 and produced the stone used in the foundations of many of the historic buildings in Escanaba. The facility conducts its crushing operation under PTI No. 79-00, a general non-metallic mineral crushing permit, and operates its concrete batch plant under exemption from Rule 201.

Process Description

A crushing plant produces smaller size aggregate from larger size rock. A crushing plant may consist of loaders, haul trucks, generators, crushers, screens, conveyors, and stockpiles. The plant is normally located within a quarry and crushes stone generated from blasting. The final product may be used for a variety of applications, including infrastructure projects and landscaping.

The process begins with raw material being fed into a primary crusher via loader, producing an initial size product. From the primary crusher, the product is conveyed into a screen plant that separates the crushed aggregate into various sized products. Smaller material is filtered out and leaves on separate conveyors to stockpiles, while larger material is transported to a secondary crusher. The secondary crusher will break the aggregate down to a smaller size aggregate before it enters the screen plant again or continues to a tertiary screen and crusher. A crushing plant may have several crushers, screens, and conveyors depending on how many sizes of aggregate are to be produced.

Emissions

Non-metallic mineral crushing can cause point and fugitive emissions of PM, PM10, and PM2.5. Emissions from process operations are considered fugitive unless the source of emissions is vented through an air pollution control device or contained and emitted through a force-air vent or stack. Fugitive sources of emissions are generated from machine movement and wind erosion. Emission sources can include hauling, crushing, screening, and transferring of material. The primary factors affecting PM emissions are wind and the moisture content of the material. Moisture on the surface of the material can cause fine particles to adhere resulting in a dust suppression effect.

Emissions Reporting

The facility is subject to the federal New Source Performance Standards (NSPS) Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants and is required to report its annual emissions to Michigan Air Emissions Reporting System (MAERS). The following table lists the source total emissions for the reporting year 2022.

Pollutant	Emissions (PPY)	Emissions (TPY)
PM10	833.25	0.416625

Compliance History

The facility has received two violation notices in the past five years. The first was issued June 22, 2021, as a violation of Rule 201 for operating a secondary portable crushing unit without a permit. This violation was resolved after the facility acquired a permit to install for the crusher (PTI No. 41-21). The most recent violation to date was issued September 23, 2022, in response to a fugitive dust complaint. The facility was found to be in violation of Rule 901 and the facility's

fugitive dust plan. The violation was resolved after the facility provided adequate plans to mitigate the source's fugitive dust. There have not been any complaints filed against the facility since.

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Inspection

On December 21, 2023, AQD staff (Drew Yesmunt) conducted a targeted inspection of Bichler Concrete & Gravel in Escanaba, MI. AQD staff arrived at the facility and met with the yard foreman, Dan Frazer. It was explained that the purpose of the inspection was to ensure compliance with PTI No. 79-00 and all other applicable air pollution control rules and federal regulations. A tour of the facility was then provided.

It was explained to AQD staff that some equipment in FGCRUSHING had been removed from the facility since it was last inspected, and that the company's secondary portable crushing unit (PTI No. 41-21) was sold and removed in March 2023. AQD staff then explained that a new process information form (EQP5756) would be requested to match the remaining equipment on-site, and that the permit for the portable crusher, PTI No. 41-21, could be voided. It was also noted during the inspection that the labels on the remaining equipment in FGCRUSHING were not clearly visible as per SC.1.11 in PTI No. 79-00. It was explained to the facility that the equipment labels would need to be redone to maintain compliance.

During the inspection, the facility appeared to be following all requirements of its fugitive dust plan. No visible emissions were observed on-site, and water sprays were observed on all necessary equipment. Following the inspection, a records request was sent to Cory Pangborn, president of Bichler Concrete & Gravel. The request included material processing records for the crusher and concrete batch plant, dust suppression application records, an updated process information form for FGCRUSHING, and photos showing proper labels on all equipment in FGCRUSHING.

FGCRUSHING

This flexible group encompasses the facility's crushing operation. During the inspection, the equipment was not in operation and was shut down for the winter season. The total throughput for 2023 was 117,974.3 tons. Upon receiving the requested records, all remaining equipment in FGCRUSHING appears to be recorded in the updated process information form and properly labeled as per SC.1.11.

FGCRUSHING is also subject to NSPS Subpart OOO and must have all applicable equipment on-site tested for visible emissions. Prior to the modification of the facility, AQD staff had maintained records of previous VE testing on FGCRUSHING to ensure compliance with NSPS

Subpart 000. Upon receiving the modified process information form, the facility included an updated plan for performance testing all applicable equipment that has remained on-site.

Equipment	Label	VE Testing Date
Vibrating Feeder	HF1	N/A
Jaw Crusher	JCR1	N/A (Installed Before 1983)
Primary Scalper Feed Belt	WB1	N/A (Installed Before 1983)
Sand Feed Belt	SF1	N/A (Installed Before 1983)
Gyro Crusher	44S	05/01/2024
Gyro Clearing Belt	SB1	N/A (Installed Before 1983)
Primary Gyro Bypass Belt	TC1	N/A (Installed Before 1983)
Primary Scalping Screen	SC1	N/A (Installed Before 1983)
Transfer Conveyor Belt	TC2	05/01/2024
Washer Feeder Belt	LB1	N/A (Installed Before 1983)
Diesel Transfer Conveyor Belt	TC3	05/01/2024

EUBATCHPLANT

This emission unit is a ready-mix concrete batch plant and is housed in its own separate warehouse. At the time of the inspection, the unit was not in operation. This unit was previously permitted under PTI No. 349-75 but was found to be exempt from permitting under Rule 289(d). To maintain compliance under Rule 289(d), the facility keeps monthly records of the cubic yards of concrete produced and must not exceed 200,000 cubic yards of concrete produced per year. In 2023, the unit produced 15,883 cubic yards of concrete.

Compliance

During the inspection of Bichler Concrete & Gravel, it was noted by AQD staff that the failure to submit a modification form for the change in equipment in FGCRUSHING and the absence of sufficient labels on the equipment in FGCRUSHING were areas of non-compliance, and if not promptly fixed, could lead to a violation notice. It also appears that not all applicable equipment in FGCRUSHING had been performance tested for visible emissions within 60 days of achieving maximum production and 180 days of startup upon modification. However, following the inspection, the facility provided an updated process information form and pictures showing proper labelling of the equipment in FGCRUSHING. The updated process information form also included a future date for performance testing for the 2024 season on all applicable equipment.

The facility appeared to be following all areas of their fugitive dust plan at the time of inspection. No visible emissions were observed on-site. At the time of inspection, the facility appeared to remain back in compliance, and the previous fugitive dust issue does not appear to be recurring.

Based on this inspection and the records reviewed, Bichler Concrete & Gravel appears to be in compliance with PTI No. 79-00 and all other applicable air pollution control rules and federal regulations. Compliance with NSPS Subpart OOO for FGCRUSHING will be able to be fully determined once performance testing occurs 05/01/2024.



Image 1(FGCRUSHING) : Remaining equipment in FGCRUSHING on-site.



Image 2(Facility Yard) : Yard for truck traffic.



Image 3(Concrete Batch Plant) : Warehouse used for facility's concrete operations.



Image 4(Loading Chute) : Chute used for concrete loading.



NAME _____

DATE 2-12-24



SUPERVISOR _____