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

N641265868

FACILITY: MATHY CRUSHING PLANT		**SRN / ID:** N6412
LOCATION: PORTABLE CRUSHING PLANT, N IRONWOOD		**DISTRICT:** Marquette
CITY: N IRONWOOD		**COUNTY:** GOGEBIC
CONTACT: Patrick Paulino , Environmental Manager		**ACTIVITY DATE:** 11/23/2022
STAFF: Joe Scanlan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Email correspondence inspection and records request for PTI 48-22. PTI 48-99 Needs to be voided.		
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.

FACILITY DESCRIPTION

Mathy Construction Company Plant #1 is a nonmetallic mineral crushing facility. The crushing facility consists of screens, crushers, feeders, conveyors, transport, and storage of nonmetallic material and currently operates under PTI 48-22. Emissions are controlled by water sprays, drop chutes, and/or pant legs for transfer points. The company and the crushing facility are based out of Wisconsin, however occasionally the facility is relocated to the Upper Peninsula of Michigan for crushing projects. In February 2022, the company submitted an application for a non-metallic crushing general permit to install for Plant #1 to include numerous pieces of equipment, including conveyors and crushers. Previously, the facility was operating under a site-specific permit (PTI 48-98) because general PTIs did not exist at the time of permitting.

PROCESS DESCRIPTION

A crushing plant produces smaller size aggregate from larger size rock. The final product can be used for a variety of applications from infrastructure projects to residential landscape purposes. A crushing plant can consist of loaders, haul trucks, generators, crushers, screens, conveyors, and stockpiles. The plant is normally located within a quarry, crushing stone that was generated from blasting. The process begins with large size rocks being fed into the primary crusher via loader, producing an initial size product. From the primary crusher, the product can be conveyed into a screen plant that separates the crushed aggregate into various sized products. Smaller size material is filtered out and leaves on separate conveyors to stockpiles, while larger size material continues into the secondary crusher. A secondary crusher will break the aggregate down into smaller sizes before it enters the screen plant again or continues down the line 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

Stone crushing and processing operations can cause point and fugitive emissions of PM, PM10, and PM2.5. PM, PM10, and PM2.5 emissions are controlled by water sprays on the crushers and

screens. Emissions from process operations should be considered fugitive unless the source of emissions is vented 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 moisture content of the material. Spray bars on crushers and screens, along with the use of dust suppressants on roadways reduces fugitive dust emissions from activity by 60% to 85%. 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). However, the facility has not operated in Michigan in the last 7+ years and zero emissions have been reported to MAERS.

REGULATORY ANALYSIS

Mathy Construction Plant 1 is subject to General Permit to Install (PTI) No. 48-22 for a portable non-metallic crushing plant. The facility is considered a true minor source because the potential-to-emit (PTE) of all regulated air pollutants is less than the major source thresholds. The facility is also considered an area source because the PTE of individual HAPs is less than 9 tpy and the PTE of aggregate HAP emissions is less than 25 tpy. The facility is subject to NSPS Subpart OOO by having a portable crushing plant with a crushing capacity of greater than 150 tons/hr and equipment that has been constructed after August 31, 1983.

COMPLIANCE HISTORY

This facility does not have any previous violations.

INSPECTION

The company did not relocate Plant #1 to Michigan in 2022. There is no plan to crush in Michigan in 2023, but that could change as project bids take place in the coming months.

All of the NSPS tests for the equipment on Plant 1 were provided by the company and also a spreadsheet summarizing the equipment. The Allis primary jaw crusher (ID# 85-299) ended up being a back-up jaw and was inactive, so NSPS testing could not be completed on it in October 2022. The company expects to have it tested during the 2023 season.

CONCLUSION

The company appears to be in compliance with PTI 48-22 and will provide documentation of NSPS testing for the Allis primary jaw crusher (ID# 85-299) when testing is completed. All other NSPS records for equipment associated with Plant #1 have been submitted to the district office and are on file.

During the records review, it was discovered that PTI 48-98 is still active and needs to be voided. An email request has been sent to the Permits Section to void PTI 48-98.

NAME _____ DATE 2-10-2023 SUPERVISOR _____