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

P115558243

FACILITY: Iron City Enterprises		**SRN / ID:** P1155
LOCATION: N2404 Highway US-41, MENOMINEE		**DISTRICT:** Marquette
CITY: MENOMINEE		**COUNTY:** MENOMINEE
CONTACT: Josh Nemetz , Manager		**ACTIVITY DATE:** 05/19/2021
STAFF: Michael Conklin	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Targeted inspection for FY 21.		
RESOLVED COMPLAINTS:		

Facility: Iron City Enterprises

Location: 7 Hill Road and PI Road, Stephenson, MI 49887

Contact: Josh Nemetz, Manager, 715-923-2211

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

Iron City Enterprises (ICE) is a construction company based out of Menominee, MI. The company provides services in the septic tank, concrete, and aggregate industries. For aggregate, ICE operates a portable nonmetallic crusher plant throughout the Upper Peninsula.

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. 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).

Compliance History

The facility was last inspected on 08/12/2020 and found not to be in compliance with Michigan Air Pollution Control Rules and federal regulations. The source was issued a violation notice on 08/21/2020 for not having a permit for the portable crushing plant and not being in compliance with 40 CFR Part 60 Subpart OOO. Permit to Install (PTI) No. 181-20 was issued on 03/10/2021 for the portable non-metallic crushing plant.

Regulatory Analysis

ICE is subject to Permit to Install (PTI) No. 181-20 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.

Inspection

An on-site inspection was performed on 05/19/2021 to determine ICE's non-metallic crushing plant compliance with PTI No. 181-20. At the time of the inspection, the plant was located at a private gravel pit in Menominee County, at the intersection of 7 Hill Rd and PI Rd in Stephenson.

The contact for the facility was Josh Nemetz, Manager of ICE. I informed Mr. Nemetz the purpose of the inspection was to determine compliance with state air pollution control rules and federal regulations.

The inspection began by going through the process from the beginning, starting with the primary crusher. The plant appears to have a setback distance of at least 500' from the nearest residential area. Process equipment was inspected for labels and water sprays where required. The plant consisted of a Lippman jaw crusher (SS4074), Allis screen and cone crusher plant (5856076), and four (4) conveyors. Labels were posted on all equipment. It was observed during the inspection that each crusher and screen had a spray nozzle attached. The spray nozzle for the jaw and cone crushers was oriented into the crushers. The plant was not operating at the time of the inspection, so no visible emissions were observed. The drop heights from conveyors to transfer points were kept low to minimize dust. No visible emissions were observed from the storage piles. The plant roadways appeared well saturated. Additional equipment on-site included a diesel engine for power generation, a water tank, and front-end loaders.

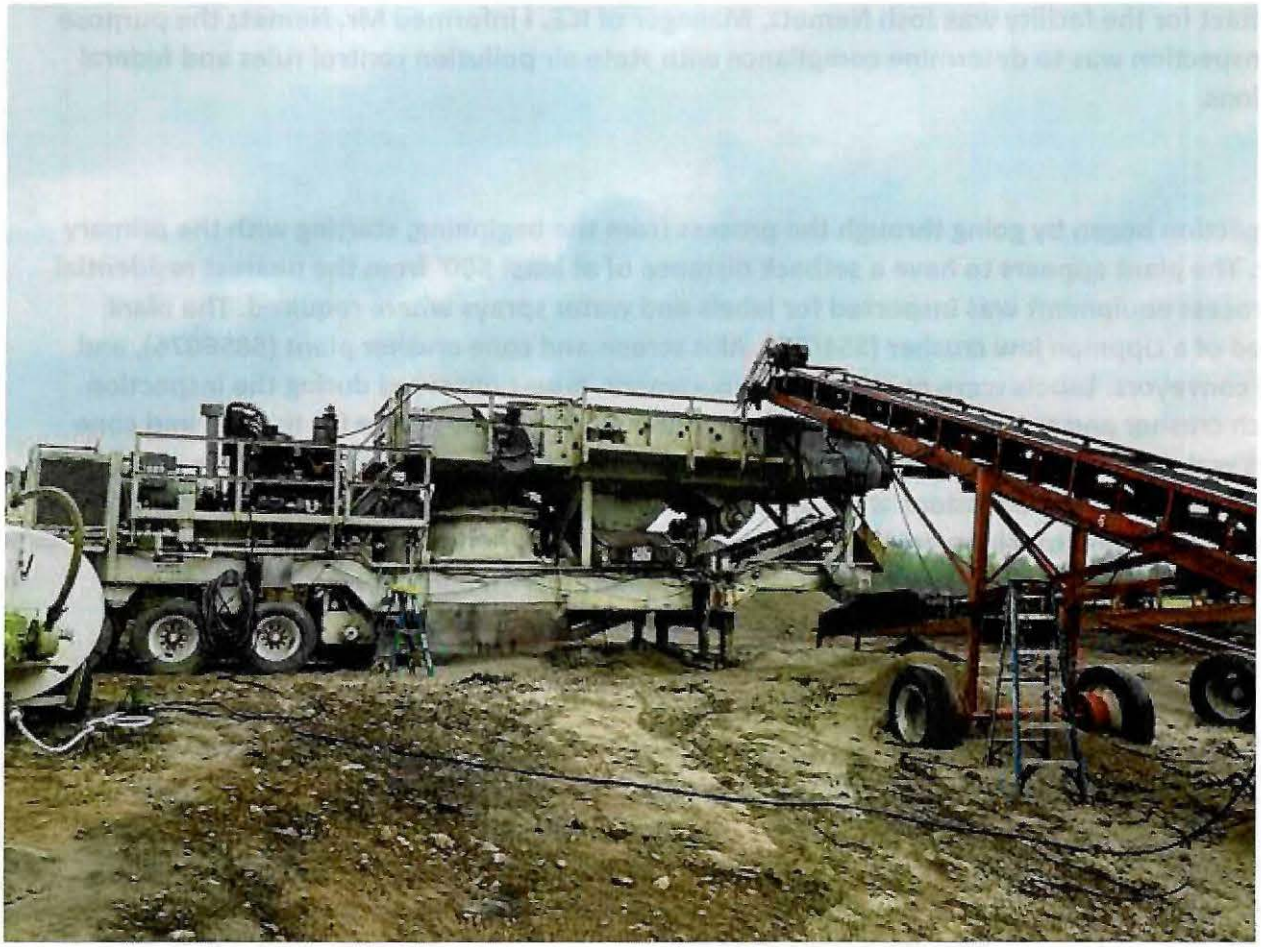
Visible emission test records for the crushing equipment located on-site were provided on 06/02/2021. Testing was performed by Daniel Routhier with DGR Engineering on 06/01/2021, who was certified by AeroMet on 03/31/2021. The equipment tested includes the Lippman jaw crusher (#SS4074), Allis cone crusher (#5856076), Conveyor 24x40 (#27), Conveyor 30x60 (#13), Conveyor 30x50 (#6), and Conveyor 30x60 (#10). Test records provided show all equipment having a 6-minute average opacity of less than 5%.

The facility is keeping track of the amount of material crushed on a daily basis and if water was used to control fugitive dust. For 2021 to-date, the plant has crushed a total of 10,000 tons of material. No asbestos tailings or asbestos-containing waste materials are processed through the plant.

The facility has submitted a EQP5757 form for relocation notices, along with a site map of where the plant will be specifically located.

Compliance

Based on this inspection, it appears Iron City Enterprises is in compliance with PTI No. 181-20.

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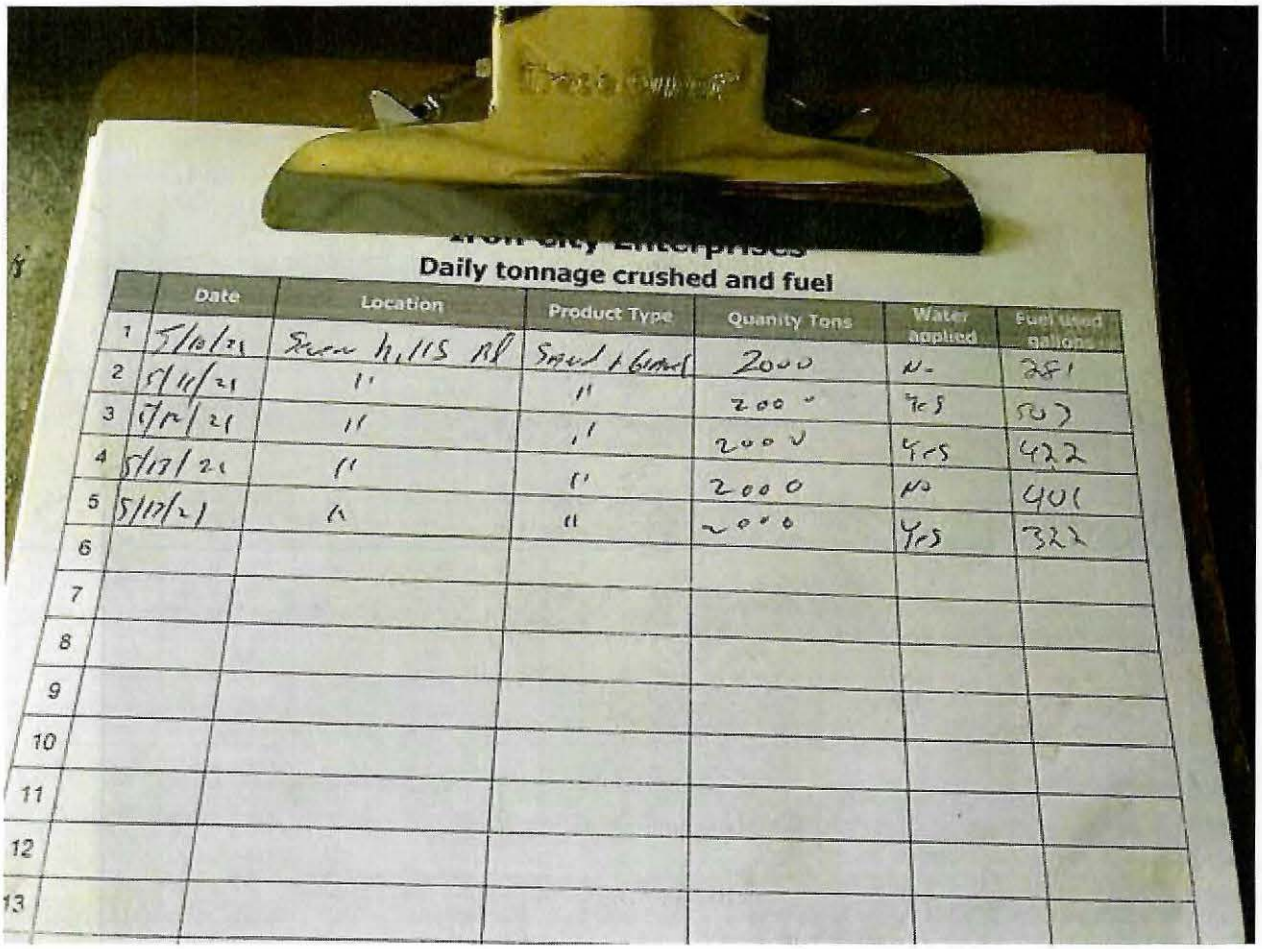

Daily tonnage crushed and fuel

	Date	Location	Product Type	Quanity Tons	Water applied	Fuel used gallons
1	5/10/21	Stone Hills Rd	Sand + Gravel	2000	No	381
2	5/11/21	"	"	2000	Yes	507
3	5/12/21	"	"	2000	Yes	422
4	5/13/21	"	"	2000	No	401
5	5/17/21	"	"	2000	Yes	322
6						
7						
8						
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NAME Willard Hollis DATE 6/8/21 SUPERVISOR EJ