

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N791950350

FACILITY: Brow Crushing Inc.		SRN / ID: N7919
LOCATION: 1564 W. Storey Row, SAULT S MARIE		DISTRICT: Upper Peninsula
CITY: SAULT S MARIE		COUNTY: CHIPPEWA
CONTACT: Eric Brow , Owner		ACTIVITY DATE: 08/16/2019
STAFF: Michael Conklin	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Self initiated inspection		
RESOLVED COMPLAINTS:		

Facility: Brow Crushing Inc. (SRN: N7919)
Location: 1564 W. Storey Row, Sault Ste. Marie, MI 49783
Contact: Eric Brow, Owner/Manager, 906-630-2609

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

Brow Crushing Inc. (Brow Crushing) is a sand and gravel company based out of Sault Ste. Marie, MI. The company operates a portable nonmetallic crusher plant at various locations throughout the Upper Peninsula of Michigan. According to the 2018 MAERS report, the company operated in Chippewa, Luce, Mackinac, and Schoolcraft County. For 2019, to-date, the plant has operated in Luce, Schoolcraft, and Mackinac County, and is currently operating at the Butkovich Excavating pit in Engadine, MI.

Emissions

Stone quarrying 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 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 000 - Standards of Performance for Nonmetallic Mineral Processing Plants and reports its annual emissions to Michigan Air Emissions Reporting System (MAERS). In 2018, the facility reported crushing 144,477 tons of material and emitting 7,224 pounds of PM10.

Compliance History

The facility has not received any violation notices in the past five years. The facility was last inspected in 2015 and found to be in compliance with Permit To Install (PTI) No. 371-07A and all other applicable air quality rules and federal regulations at that time.

Regulatory Analysis

Brow Crushing is currently subject to PTI No. 371-07A 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 000 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

On August 9, 2019, I conducted an unannounced inspection on Brow Crushing at the Butkovich Excavating pit in Engadine, MI. I arrived at the site and met with Mike Butkovich. I explained to Mr.

Butkovich that the purpose of the inspection was to ensure compliance with PTI No. 371-07A and all other applicable air pollution control rules and federal regulations. Mr. Butkovich stated that the Brow Crushing plant had finished crushing and moved out of the site on August 8th. A relocation notice was received on August 12, 2019, stating that the plant would be operating at the Northern Sand and Gravel pit in Sault Ste. Marie from August 12th through the 30th.

On August 16th I visited the Northern Sand and Gravel and met with plant owner and manager, Eric Brow. I explained to Mr. Brow that the purpose of the inspection was to ensure compliance with PTI No. 371-07A and all other applicable air pollution control rules and federal regulations. The inspection began by going through the process from the beginning, starting with the primary crusher. Process equipment was inspected for labels and water sprays on crushers and screens. The table below lists the equipment that was on-site and labeled (SC IX.1). Water sprays were installed on the cone crusher and the conveyor that feeds material into the cone crusher (SC IV.1). Mr. Brow indicated that the stacking conveyor has a belt scale that records the daily throughput (SC IV.2).

Before the plant resumed operation, we reviewed records of material crushed and watering for control of fugitive dust. The plant is recording daily the amount of material crushed and hours of operation (SC VI.2). In a follow up email, Mr. Brow stated that 60,346 tons has been processed for the year. Daily records of the amount of water being used, in gallons, is recorded for both the plant (crushing equipment) and the plant roadways.

At the time of the inspection, the plant yard and roadways were well saturated and no visible emissions from loader traffic were visible. No visible emissions from the stockpiles were observed based on the nature of how saturated the material being crushed was. Once the plant began operation, visible emission observations were taken on the portable crushing equipment. There were no visible emissions observed from any of the processing equipment.

Equipment Number	Description
2-1	Cedar Rapids Primary Crusher
2-2	Allis Chalmers Cone Crusher RC 45
2-5	Stacking Conveyor

The following table lists equipment that is considered to be exempt at the source.

Emission Unit	Description	PTI Exemption
EUENGINE	551 HP RICE	R 336.1285(2)(g)

Compliance

Based on this inspection, it appears that Brow Crushing is in compliance with PTI No. 371-07A and all applicable air pollution control rules and federal regulations.



Image 1(Portable Plant) : Brow Crushing portable plant.



Image 2(Watering Truck) : Water truck that is used to control fugitive dust in plant yard.



Image 3(Water Supply) : Water supply for crushing equipment.





Image 5(Conveyor) : Conveyor into cone crusher with water spray attached.

DAILY CRUSHING LOG

CRUSHING FOR: GIS

DATE	BUCKET COUNT	YDS.	TONAGE	TOTAL TONS	HRS.
6-2-18	201		201	201	8
6-3-18	150		150	150	11
6-7-18	757		757	2503	8
6-10-18	1600		1600	4103	
6-11-18	424		424	4527	
6-12-18	0		0		
6-13-18	96		96	5623	
6-14-18	94		94	5717	14
6-18-18	1187		1187	6904	13
6-20-18	1215		1215	8119	13
6-21-18	526		526	8645	10
6-29-18	1046		1046	9691	12

LDR 1 = 7 YDS. LDR 2 = 7.5 YDS. LDR 3 = 5 YDS.
5 YDS.

Image 6(Crushing Records) : Daily crushing throughput and hours of operation.

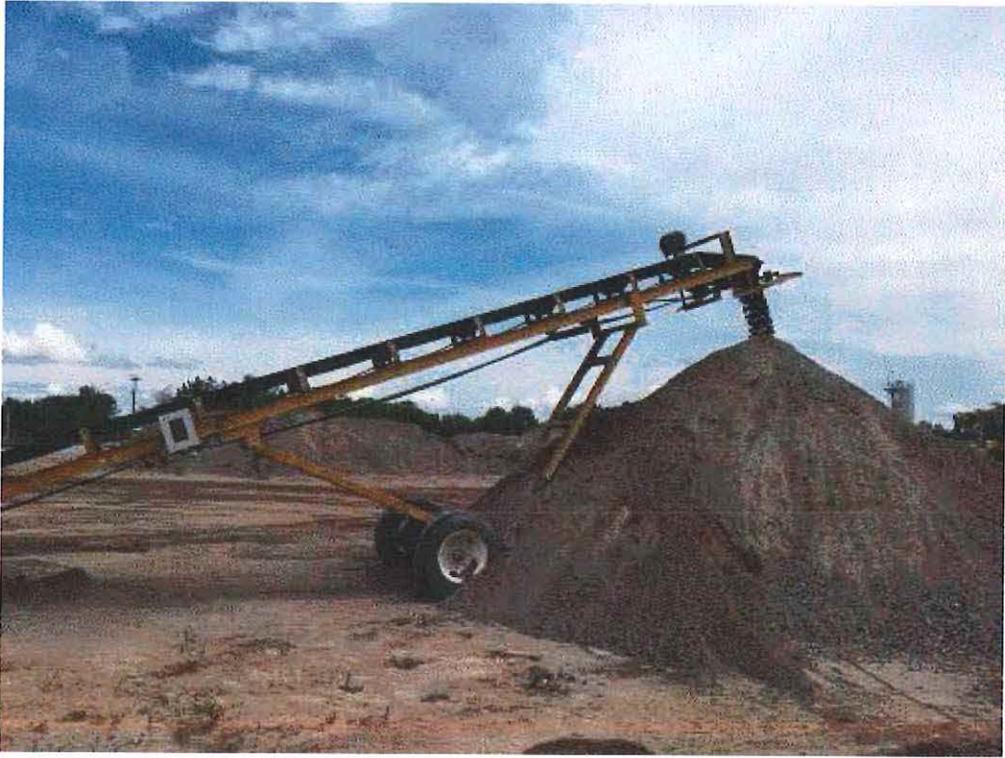


Image 7(Stacking Conveyor) : Stacking conveyor with belt scale. No visible emissions observed from storage piles.



Image 8(Plant Yard) : Conditions of plant yard upon inspection.

NAME Michael Melvin

DATE 9/12/2019

SUPERVISOR ELJ