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

N553167060

FACILITY: CHAMPAGNE & MARX EXCAVATING INC		**SRN / ID:** N5531
LOCATION: CHAMPAGNE & MARX, MICHIGAN RD PIT, SAGINAW		**DISTRICT:** Bay City
CITY: SAGINAW		**COUNTY:** SAGINAW
CONTACT: Brad Wood , General Manager		**ACTIVITY DATE:** 04/12/2023
STAFF: Daniel McGeen	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Inspection of concrete crusher which did not have a water spray or water line to the primary crusher.		
RESOLVED COMPLAINTS:		

On 4/12/2023, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) conducted an unannounced inspection of the Champagne & Marx portable crusher operating under State Registration Number (SRN) N5531. This was done as a response to witnessing heavy fugitive dust from the plant and surrounding site, as it operated at the Wilder Road exit of I-69 near Lapeer, Lapeer County.

Facility description:

This facility is a portable, non-metallic mineral crusher.

Environmental contacts:

- Brad Wood, General Manager; 989-755-8971; bradw@champagnemarx.com
- Chris, Plant Operator

EGLE AQD contact:

Dan McGeen, inspector; 517-648-7547; mcgeend@michigan.gov

Emission units:

FGCRUSHING includes the following, from the PTI application for General PTI 446-99:

- Cedar Rapids jaw crusher, manufactured in 2000, and stated to be not subject to 40 CFR Part 60, Subpart OOO, due to rated capacity of less than 150 tons per hour (TPH), DEVICE ID 3054.
- Telsmith 5252 portable impact crusher, manufactured in 1999, and stated to be not subject to Subpart OOO, due to rated capacity of less than 150 TPH, DEVICE ID 5252.
- Gen Plant #2, year of manufacture unknown, stated to be not subject to 40 CFR Part 60, Subpart OOO, due to rated capacity of less than 150 TPH, DEVICE ID 3412.02.
- McCloskey Under Crusher Conveyor, manufactured in 2000, and stated to be not subject to 40 CFR Part 60, Subpart OOO, due to rated capacity of less than 150 TPH, DEVICE ID 3055.18.
- McCloskey Screen Feed Conveyor, year of manufacture unknown, stated to be not subject to 40 CFR Part 60, Subpart OOO, due to rated capacity of less than 150 TPH, DEVICE ID 3055.41.
- Recirculating Conveyor, manufactured in 2000, and stated to be not subject to 40 CFR Part 60, Subpart OOO, due to rated capacity of less than 150 TPH, DEVICE ID 3055.75.
- Screen Feed Conveyor; manufactured in 2000, stated to be not subject to 40 CFR Part 60, Subpart OOO, due to rated capacity of less than 150 TPH, DEVICE ID 3055.72.

Regulatory overview:

This facility is considered a minor source of *criteria pollutants*, those pollutants for which a National Ambient Air Quality Standard (NAAQS) exist. These include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns (PM10), and particulate matter smaller than 2.5 microns (PM2.5). A major source of criteria pollutants has the potential to emit (PTE) of 100 tons per year (TPY) or more of any one of the criteria pollutants, and would be subject to the Renewable Operating Permit program.

This facility is also considered to be a minor or *area source* for hazardous air Pollutants (HAPs), because it has a PTE of less than 10 TPY for any single HAP and less than 25 TPY for all HAPs combined.

The primary crusher, the Cedar Rapids jaw crusher, was built in 2000. The secondary crusher, theTelsmith impact crusher, was built in 1999, per the General PTI 446-99 permit application. The relocation notice's copy of the general permit to install application forms for the crusher (updated 3/30/2023 to reflect a change in conveyor layout) states that the crushers and other plant components are rated at less than 150 tons per hour, and therefore not subject to 40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. However, the application notes that the plant has evidently conducted and passed visible emissions testing.

Per internal AQD guidance to staff, rated capacity of a crusher may change, depending on what the crusher is set for, with spacing of shims. This is something which the district can follow up on at a later date, to see if the crusher, under some circumstances, could conceivably have a different rated capacity.

Location:

The portable nonmetallic mineral processing plant was at the junction of I-69 and Wilder Road near Lapeer, in Lapeer County. It was part of a project to rebuild 7.2 miles of I-69 between M-24 and Lake George Road, per the MDOT Rebuilding Michigan webpage. The MDOT official for the I-69 Lapeer County project is MDOT Bay Region Media Representative Jocelyn Garza; 989-245-7117; GarzaJ10@Michigan.gov.

Fee status:

This portable plant is not considered a Category D subject fee source, because it is considered to be not subject to the NSPS, Subpart OOO. It is not required to report air emissions annually via the Michigan Air Emissions Reporting System (MAERS).

History:

The crusher was most recently inspected on 8/13/2013, and found to be in compliance.

The AQD Lansing District Office reviewed the portable crushing plant relocation notice which was received on 3/29/2023. AQD requested additional supporting materials, the general PTI application forms, which were received on 3/30/2023.

Safety apparel:

AQD's Dan McGeen wore a hard hat, safety glasses, steel-toed boots, and high visibility safety vest, and had hearing protection available, if needed. D. McGeen wore a disposable paper mask, per personal preference, during the COVID-19 pandemic.

Arrival:

AQD was represented on 4/12/2023 by D. McGeen. He was enroute to an unrelated complaint investigation in Lapeer County, driving eastbound on I-69. Just west of the Wilder Road underpass was a portable concrete crusher, with a cloud of backlit fugitive dust coming from the site. The sun was in the wrong angle for proper visible emission reading, but the opacity appeared excessive.

D. McGeen drove furter east, then accessed part of the construction site, before driving back, westward, to to the crusher site. Opacity was excessive from the primary crusher, a screening unit, and a number of conveyor drop-off points. Opacity was also intermittently heavy from the unpaved roadways, which appeared quite dry.

Weather conditions were clear, with low humidity, and winds 15 mph out of the WSW, with gusts up to 30 mph. Conditions were dry and windy enough that a "no burn" advisory was in place for this part of the state, due to forest fire danger.

D. McGeen met with the plant operator, Chris, and explained that he had noted the excessive opacity while driving by, and wanted to investigate.

Inspection:

The primary crusher, the Cedar Rapids jaw crusher, was operating. D. McGeen asked about supplying water to the crusher, and was told that it did not have a water spray system, nor a water line. This constituted a violation of General PTI No. 446-99, Special Condition (SC) 1.7, using the latest format of the crusher general PTI, available online.

Opacity from the primary crusher was excessive, per 3 photos AQD took (attached), and a video which AQD recorded.

1. IMG_0781.JPG; fugitive dust from primary crusher.
2. IMG_0782.JPG; continued fugitive dust, same viewing angle.
3. IMG_0783.JPG; continued fugitive dust, same viewing angle.
4. IMG_0784.MOV; a short video of heavier fugitive dust from the primary crusher, taken from a closer viewing angle.

Opacity from the screening process and from the drop off point of conveyor belts appeared excessive as well.

D. McGeen explained that the crusher would almost certainly fail to meet the opacity limit in the General PTI, over a 6-minute average. He did not conduct Method 9 visible emission observations on the primary crusher or other plant processes, as the plant shut down at this point. Chris indicated that the next morning, before the plant began operations, he would have a water spray installed on the crusher.

Unpaved site roadways were dry, and fugitive dust was moderate to heavy. A water truck arrived from the west, as D. McGeen was speaking with Chris. It had been out on the construction project, further west, AQD was informed. Chris went to talk with the operator about applying water to the site roadays. It appeared the fugitive dust plan was not consistently being followed. This constituted a violation of General PTI 446-99, SC 1.6.

The Cedar Rapids primary crusher was labeled as follows: ID 3054. This complies with the labeling requirement in the General PTI 446-99, SC 1.11. D. McGeen did not take the time to check for labels on all the emission units onsite, being enroute to a complaint investigation.

AQD left the site at this time.

Post-inspection follow-up:

A VN was sent by AQD on 4/19/2023 for lack of a water spray system for the primary crusher, and for failure to consistently follow the fugitive dust plan.

The VN response letter from Champagne & Marx General Manager Brad Wood was received on 4/25/2023, stating that on 4/13, a spray bar was added to the primary crusher. He noted that there were two existing spray bars, on the impactor or impact crusher, and the Meg 1 conveyor, which were reported to be in operation on 4/12.

Conclusion:

AQD observed two instances of noncompliance; the primary crusher not being equipped with a water spray system, and the facility's fugitive dust plan for onsite roadways not being followed consistently. A VN was sent on 4/19/2023. The company's VN response letter was received on 4/25/2023, and appeared acceptable for resolving the violation.

Image 1(001) : Fugitive dust from primary crusher.

Image 2(002) : Continued fugitive dust.

Image 3(003) : Continued fugitive dust.

NAME _____ DATE 5/30/2023 SUPERVISOR RB