

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

P116458445

FACILITY: MT CRUSHMOR, LLC		SRN / ID: P1164
LOCATION: 2420 S GRAND TRAVERSE, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Lyle Hippensteel , President		ACTIVITY DATE: 06/14/2021
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Attempted VE test and inspection of recently permitted crusher.		
RESOLVED COMPLAINTS:		

On 6/14/2021, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an inspection of Mt. Crushmor LLC's portable concrete crushing plant, during an attempted visible emission or opacity test, at 2420 S. Grand Traverse Street, Flint, in Genesee County.

Facility contacts:

- Lyle Hippensteel, President; 810-424-1000; dirtechcontracting@gmail.com
- Jacob Abair, Fishbeck, Chemical Engineer; 248-324-2148; jjabair@fishbeck.com

Facility description:

This facility is a portable, non-metallic mineral crusher, which was recently acquired and permitted by the company.

Emission units:

- Sandvik QJ331 portable primary jaw crusher; General PI No. 1-21; 40 CFR Part 60, Subpart OOO; noncompliance for Gen PTI No. 1-21
- Fintec 542 screening process, General PTI No. 1-21; noncompliance for General PI No. 1-21

Regulatory overview:

This facility is considered a minor source of criteria pollutants, that is, 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.

This facility is subject to 40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*. This New Source Performance Standard (NSPS) was updated on 4/22/2008. Table 3 to Subpart OOO sets a 12% crusher opacity limit, and a 7% screen opacity limit, for affected facilities (as defined in Section 60.670 and 60.671) that commenced construction, modification, or reconstruction on or after 4/22/2008.

Mt Crushmor LLC is covered by General Permit to Install (PTI) No. 1-21 for their nonmetallic mineral crushing facility located at 2420 South Grand Traverse Street, Flint. The general PTI also allows for portable operation, provided relocation criteria are met.

Location:

The site that was involved with today's inspection and attempted visible emission testing was 2420 S. Grand Traverse, Flint, in Genesee County.

Just inside the entrance to the site are two small businesses, in addition to a shop building for Mt. Crushmor, LLC. The crusher and the material to be processed sit back further, away from the road. The site is surrounded on 3 sides by trees. The distance to the nearest residence is 500 feet or more to the northeast, depending on where within the site the crusher is located.

There are no known air pollution complaints associated with the crusher or this site.

Fee status:

This portable plant is considered a Category D subject fee source, because it is subject to the NSPS, Subpart OOO. It reports air emissions annually via the Michigan Air Emissions Reporting System (MAERS).

History:

Mr. Lyle Hippensteel has informed me that in the past, his business used to hire contractors to bring in portable crushers, to process their concrete and Recycled Asphalt Paving (RAP) materials onsite. However, he explained that it became so difficult to find a company that was not already booked during the crushing season, that they decided it would be more practical to purchase their own crusher. Their consultant is Mr. Jacob Abair of Fishbeck, who worked with them on the 1/18/2021 permit application, and on the subsequent 6/7/2021 visible emissions testing protocol.

As previously mentioned under "Location," there are no known complaints associated with this facility.

Safety apparel:

I wore a hard hat, safety glasses, steel-toed boots, hearing protection, and high visibility safety vest. I also wore a disposable paper mask, per EGLE guidance to field staff during the COVID-19 pandemic.

Arrival:

I arrived at the site. I did not see anyone in the shop building to the southwest of the site entrance. There were a few small buildings nearby, which looked to house separate small businesses. I walked back on the unpaved entrance road, and soon found the crusher, which was operating.

I was soon met by Mr. Jacon Abair, Chemical Engineer, from Fishbeck, who was here to conduct Method 9 visible emission readings, so the company could demonstrate compliance with 40 CFR Part 60, Subpart OOO requirements.

Attempted VE test and inspection:

The crusher had no water supply, it appeared, and VE were excessive. The screening process had no water supply, and visible emissions from the screen's exit conveyor were excessive. They did not travel a lengthy distance, but the opacity instantaneously ranged from as low as 10 to as high as 80%, I estimated. Mr. Abair and I discussed how the crushing plant would likely fail to meet the opacity limits.

Soon, Mr. Lyle Hippensteel, President, arrived onsite, Mr. Abair explained the above concerns to him, and suggested it would be better to wait on the opacity testing until the visible emission issues had been resolved. Mr. Hippensteel therefore offered to voluntarily cease operation of the plant, until the opacity issues were addressed.

General PTI No. 1-21, Special Condition (SC) FGCRUSHING 1.2b limits visible emissions or opacity from crushers to a 6-minute average of 15% opacity. It is doubtful that this limit would have been met, had the visible emission testing proceeded.

General PTI No. 1-21, SC FGCRUSHING 1.2c limits opacity from screens to a 6-minute average of 10% opacity. It is doubtful that this limit would have been met, had the visible emission testing proceeded.

General PTI No. 1-21 SC FGCRUSHING 1.2e limits opacity from conveyors transfer points to 10% opacity. Opacity from transfer points of conveyors ranged from 0 to 80, instantaneously. It was very doubtful that this opacity limit would be met over, a 6-minute average.

This mineral processing plant is also subject to 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Facilities*. The crusher was built in 2013, and therefore is subject to the visible emission limit of 12% opacity, over a 6-minute average, for crushers built on or after April 22, 2008. It is unlikely that this limit would have been met, had the testing proceeded.

Subpart OOO also includes a limit of 10% for screening processes that commenced construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008. The screen was built in 2005, and so is subject to this limit. The 10% limit is equal to the 10% limit in the AQD general PTI No. 1-21 for screening processes. It is unlikely that this limit would have been met, had the testing proceeded.

General PTI No. 1-21, SC 1.7 states: "Each crusher and screen shall be equipped with a water spray. A baghouse dust collector may be installed in lieu of water spray for any particular piece of equipment. The control equipment shall be properly operated as necessary to comply with all emission limits.

The crusher had a water spray system installed, but the screen had none, to my understanding. SC 1.7 also requires the control equipment to be properly operated as necessary to comply with all emission limits. No water supply was available for the crusher at all, therefore the crusher water spray system was not being operated properly.

Note: One of the underlying applicable requirements for SC 1.7 is MAPC Rule 910, which requires that an air pollution control device be installed, maintained, and operated properly.

Mr. Hippensteel explained that they have no water source at the site, at present, because the City of Flint will not allow for a well to be drilled. He indicated that purchasing a water truck would be economically prohibitive, but said they had an existing storage tank that could potentially be used as a water storage tank for the crusher. He offered to voluntarily not operate crusher, until this situation could be corrected.

Mr. Hippensteel further explained that their storage tank was a former gasoline underground storage tank (UST). It had been dug up, and was at their site, as I understand it. I indicated I would do some follow up, to ask EGLE's Materials Management Division (MMD), if it would be acceptable to use this as an aboveground storage tank (AST).

Although I did not address it at the time of the inspection, General PTI 1-21, SC 1.11 requires the company to label all the equipment associated with FGCRUSHING with the company ID specified in the application form, which would be "001" and "002", for the primary jar crusher and screen, respectively. Today, I did not observe the ID numbers on either the crusher or screen, but I did not walk all around the processes. I therefore could not confirm the presence or absence of the ID labels. I will ask the company to add these, if they have not already, to avoid a potential violation of SC 1.11.

Compliance findings:

The compliance issues observed today were as follows:

- Not meeting SC. 1.7, by lack of a water spray for the screening process
- Not meeting SC 1.7, by lack of a water source onsite, at a time when the crusher needed water to comply with the permitted visible emission limits,
- not meeting MAPC Rule 910, which requires that an air pollution control device be installed, operated, and maintained properly.

Post-inspection follow up:

Following the inspection, I contacted EGLE Materials MMD inspector Bryan Grochowski, to ask about Mr. Hippensteel's proposal to use a former gasoline UST as an AST for water for the crusher. Based

on B. Gorchowski's site-specific guidance, I emailed to Mr. Hippensteel and Mr. Abair the following guidance on the tank, on 7/8/2021:

Hi Lyle and Jacob,

I wanted to get back with you, on Lyle's question about the possibility of using a former underground storage tank (UST), which was evidently once used for gasoline, as an above ground storage tank (AST) to hold water for the crusher's dust control system. I apologize for the length of time it has taken me to get back with you.

I contacted Bryan Grochowski of EGLE's Materials Management Division (MMD). He indicated that, "Yes, if it is managed properly, it could be used for water." He emphasized this guidance applies to your circumstances, as I described them, so therefore it shouldn't be used by other operators with their own USTs/ASTs, as their circumstances might be somewhat different.

He stated that the gasoline tank should be emptied first, and all gasoline product used as product (fuel), from a common sense standpoint (if that has not been done already). He added, "RCRA Hazardous waste laws, do not specifically address residues or small amounts of products left in a large product tank. It's different if the tank contained hazardous waste, but this sounds like a product tank. For product containers with less than 1% inside can be considered "RCRA Empty", and the small amount of liquid would not be regulated by RCRA, unless it was sufficient to contaminate the liquids added to the tank."

Bryan added that disposal of liquids generated from cleaning or rinsing out the tank would be regulated. If the tank is already sufficiently empty, then he did not see a reason why it could not be used to store water for dust control. He mentioned if there was a significant amount of gasoline left in the tank, it could potentially still generate explosive vapors. For any significant amount of gasoline still in the tank, benzene could be a concern for waste disposal, and, for pre-1994 tanks with old gasoline left in them, lead could be an issue, which would require proper disposal of the waste gasoline or rinse water.

Last, Bryan mentioned that USTs removed from the ground could potentially have or develop leaks, so to be prepared to fix leaks, as needed.

On 7/13/2021, AQD sent A VN, for SC 1.7 of General PTI No. 1-21, and for MAPC Rule 910, with a response deadline date of 8/3/2021.

Mr. Hippensteel attempted to contact me in early August, but I failed to get back with him in a timely manner. On 8/13/2021, he called me. He had not been operating the crusher at all, he explained, since could not afford the cost of having water brought to the site, and the City of Flint would not permit a well to be drilled onsite. He indicated he was considering selling the crusher, as it would be cheaper than complying. I indicated that the general permit requires water be added to the process for dust suppression purposes as needed, but under wet conditions, it would not be necessary to add water to the crusher. This had not been clearly communicated before, it turned out, but with this knowledge at hand, Mr. Hippensteel believed that he would be able to operate the crusher in the future, under the right weather conditions.

Mr. Hippensteel indicated that he would have a VN response letter sent to AQD, but it might not be immediately, because he might be in the hospital for a few days. I indicated that as long as we knew a letter would be forthcoming, the delay would be acceptable.

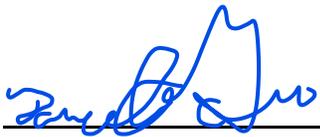
The letter arrived via email on 8/17/2021, and indicated that they were trying to address the violation from several angles:

1. Getting a water source for the spray system already existing on the crusher.
2. Having water sprays installed on the screening process.
3. Trying to get a water source at the site, though the cost of hauling water in would be high for them, as Flint would not allow a well to be drilled onsite.
4. They would plan to operate in the meantime only when conditions were wet, or when enough soil covered the concrete raw material to prevent excessive dust.
5. They will keep AQD updated on their progress.

Conclusion:

For violations observed on 6/14/2021, a VN was sent on 7/13/2021, for General PTI No. 1-21, SC FGCRUSHING 1.7, and for Rule 910. The company subsequently called AQD, and responded in writing to AQD. They indicated that having a water tank available at the site was not financially within their reach at this time, but they committed to operating the crusher only when weather conditions were such that fugitive dust would be controlled.

Note: Visible emission testing must still be conducted, pursuant to the federal New Source Performance Standards, within 180 days of startup. For this purpose, startup could be considered the date the crusher first operated after receiving its general PTI No. 1-21. I will communicate this to the company.

NAME DATE 9/30/2021SUPERVISOR B.M.