

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

P015629007

FACILITY: Fisher Sand and Gravel Co		SRN / ID: P0156
LOCATION: 921 S Jefferson Ave, MIDLAND		DISTRICT: Saginaw Bay
CITY: MIDLAND		COUNTY: MIDLAND
CONTACT: Phil Cowles ,		ACTIVITY DATE: 04/01/2015
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, self-initiated inspection of crusher at temporary location (former Michigan School for the Blind Lansing site) with temporary, site-specific PTI.		
RESOLVED COMPLAINTS:		

On 4/1/2015, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an unannounced, self-initiated inspection of the Fisher Sand and Gravel portable non-metallic mineral processing plant with SRN P0156. It was at a temporary location, the former Lansing site of the Michigan School for the Blind. I was accompanied by AQD Permit Engineer Nick Zabrodsky, who had written the site-specific Permit to Install (PTI), No. 30-15.

Environmental contacts:

Dean Gatehouse, Superintendent; 989-539-6431; dsgatehouse@msn.com

Facility description:

This facility is a portable concrete crushing facility.

Emission units:

Emission Unit ID	Emission Unit Description	Compliance Status
EUPROCESS	A combination of process equipment (screens, crushers, feeders, conveyors, etc.) used to reduce larger materials down to smaller sizes, classify and sort materials into various product types, material handling and transporting of material to storage areas. Control methods include equipment enclosures or enclosed within a building, water sprays, drop chutes and/or pant legs for transfer points	Compliance
EUTRUCKTRAFFIC	Truck traffic for delivery of material products to customers; truck traffic from unloading area to processing area and loader traffic associated with processing equipment, storage pile handling and loading delivery trucks. All commercial truck areas and unpaved road portions.	Pending
EUSTORAGE	Open area stock piles of various material sizes and product types. Water spray of material products are used when necessary for material storage piles	Compliance

Regulatory overview:

This portable concrete crushing facility normally operates under a general PTI. However, for temporarily crushing at the former Michigan School for the Blind site in Lansing, the crusher would not be able to comply with the 500 foot setback requirement for residences, businesses, and places of public assembly in the general crusher PTI. Therefore, it was necessary to have the company apply for and receive a site-specific PTI, No. 30-15.

This facility is considered a true minor source for particulate matter, because it does not have the potential to emit (PTE) to emit 100 tons per year (TPY) or more of particulate matter smaller than 10 microns (PM-10) or particulate matter smaller than 2.5 microns (PM2.5). It does not have the PTE to be a major source for CO, NOx, SO2, VOC, or lead. It is not considered to be a major source for Hazardous Air Pollutants (HAPs), because it does not have the PTE 10 TPY or more of a single HAP, nor does it have the PTE to emit 25 TPY or more of total HAPs.

Fee status:

This crusher is considered a Category II fee-subject facility, because it is subject to 40 CFR Part 60, Subpart OOO, the Standards of Performance for Nonmetallic Mineral Processing Facilities. It annually reports emissions via the Michigan Air Emissions Reporting System (MAERS).

Location:

The site was the former Michigan School for the Blind, in Lansing, where several structures had been demolished. Approximately 30,000 tons of concrete rubble were to be crushed. The setback distances at this site of roughly 300 feet to the nearest residences were too close to make use of the general permit for portable non-metallic mineral processing plants, which requires a 500 foot setback. Thus, the site-specific PTI, No. 30-15, was the appropriate approach. Because of the residential nature of the surrounding area, the AQD determined that an unannounced compliance inspection would be appropriate, to make sure that there were no fugitive dust issues.

Recent history:

On 3/24/2015, the AQD had previously attempted to conduct an unannounced inspection of Fisher Sand & Gravel, at this location. Because of recent rains, however, the site was too muddy to complete installation of the portable crushing, screening, and conveying equipment. This is documented, in a previous inspection report.

Arrival:

As N. Zabrodsky and I approached the site on Willow, driving east, we saw clouds of fugitive dust drifting across the road from the former School for the Blind site. This immediately caused us concern. Weather conditions were dry, sunny, and approximately 60 degrees F, with winds 5 miles per hour, out of the southwest.

We arrived, and observed that the fugitive dust leaving the site appeared to be coming from a roadway running along the north property line, as it was traveled by a front end loader. We were not in a location suited for conducting Method 9 visible emission readings, as the sun was not at our backs.

We met with Mr. Phil Cowles, who had already received the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, during my previous site visit. Once introductions had been made, I pointed out the fugitive dust from the road, and recommended that water be applied to the roadway, as soon as possible.

Mr. Cowles was willing to have water from their water truck applied to the roadway. However, he pointed out that they would have to shut the crusher down in order to do that, as the crusher was currently hooked up to the truck, for water. Plus, they would have to drive the truck offsite to refill it, first, and the refilling process would take 45 minutes. Because N. Zabrodsky had a limited amount of time to see the crusher before he needed to return to the office, I proposed that we observe the crusher in operation first, and following that, the crusher could be shut down, and the water truck refilled. Mr. Cowles agreed to this.

Inspection:

They were almost done with the concrete at this site, Mr. Cowles said. He estimated they would be done on 4/3. Then, they would just need to crush a small amount of asphalt, and probably be done on Monday, 4/6.

The Lippman jaw crusher was running, at this time. There was one water spray at the intake, and one at the exit to the crusher. A mist of water droplets rose from the crusher entrance and exit, and it was very difficult to tell if particulate matter from the crusher was present. It looked as if opacity was 0% from the crusher intake, and averaged about 5% from the crusher exit. The small amount of particulates from the crusher exit did not travel more than 2-3 feet from their point of origin.

The secondary crusher, a Morowski Crusher Impactor, had one water line running to it, for dust control. The opacity was 0%. The screening process had 3 water lines running to it, and there was 0% opacity. Also, there were no visible emissions from conveyor transfer points, nor from conveyors stockpiling finished product. Freefall distances from the stacker conveyors to the stockpiles were extremely minimal, approximately 18 inches.

The crushers, screen, and conveyors all appeared to be labeled with their identification numbers, as required by the air use permit. Some ID numbers were painted on the equipment, and other ID numbers were welded on.

A magnet is used to remove metal rebar from the processed material, after it exits the primary crusher on a conveyor. N. Zabrodsky observed that a 2 to 3 foot section of rebar was inadvertently launched into the air. It traveled for approximately 25 feet, before landing. AQD staff inspecting any crusher should make sure they are not standing in a location where a stray piece of rebar might be expected to fall.

We left the site at this time, while Mr. Cowles went to fill up the water truck, so they could apply water to the roadways. AQD has not received any complaints of dust resulting from Fisher Sand & Gravel's operations at this site.

Conclusion:

I did not find any violations of PTI No. 30-15, the Air Pollution Control Rules, or 40 CFR Part 60, Supart 000. The facility appeared to be well controlled, overall. The one concern that I identified was fugitive dust from a site roadway, which was being resolved as we left the site. Mr. Cowles was very helpful.

NAME



DATE

6/12/2015

SUPERVISOR



