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DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N715149993

FACILITY: Mid Michigan Materials-Bechtel		SRN / ID: N7151
LOCATION: 5278 Churchill Road, Brown City		DISTRICT: Lansing
CITY: Brown City		COUNTY: LAPEER
CONTACT: Robert Wilson , Vice President		ACTIVITY DATE: 08/20/2019
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection during visible emissions testing.		
RESOLVED COMPLAINTS:		

On 8/20/2019 the Michigan Department of Environment, Great Lakes, and Energy (EGLE) conducted a scheduled inspection of Mid Michigan Material-Bechtel, and witnessed part of the visible emissions testing being conducted.

Environmental contacts:

Jeffrey W. Wilson, President; 810-327-6251; jwilson@midmichiganmaterials.com

Rob W. Wilson, Vice President; 810-327-2548; rwilson@midmichiganmaterials.com

Kathleen Anderson, President, Axis Environmental Consulting Corp.; 810-845-3925; kanderson@ajaxpaving.com

Facility description:

Non-metallic mineral processing operation, operating as part of a sand and gravel pit operation. The plant only processes virgin aggregate.

Emission Units:

Non-metallic mineral processing operation, operating under General Permit to Install (PTI) No. 150-02; subject to 40 CFR Part 60, Subpart OOO

The facility includes the following, after recent addition of new equipment:

1. wash plant;
2. mini-wash plant; and
3. crushing plant

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.*

Fee status:

This facility is not considered a Category I fee-subject source, because it is not a major source for criteria air pollutants. It is considered a Category II fee-subject source, because it is subject to a New Source Performance Standard. The facility reports emissions each year through the Michigan Air Emission Reporting System (MAERS).

Location:

The sand and gravel mining operation is in an agricultural area, with scattered residences in the vicinity. The nearest residence is about 1,800 feet to the northwest, as measured by me in Google Maps. The other closest residences are 2,200 -2,500 feet to the east.

History:

For many years this facility was operated under the ownership of Paul Bechtel Sand & Gravel. It was last inspected by AQD in 2012. In recent years, Mid Michigan Materials was considering purchasing the facility, and their environmental consultant, Ms. Kathleen Anderson of Axis Environmental Consulting Corp., researched the AQD files to determine the facility's history. T

On 7/1/2019, a general permit to install application to update General PTI No. 150-02 was submitted by Mid Michigan Materials, who evidently took over operations here, on 3/1/2018. They explained that they were adding new equipment to the site. and from the recent file review, it was very difficult to tell which of the site's original equipment was permitted, and which was not. The permit application was to bring everything at the site under the existing General PTI 150-02.

Previous testing:

Neither AQD nor the company had been able to find records of opacity, or visible emission (VE), testing being conducted by the previous owners, Paul Bechtel Sand & Gravel. Therefore, Mid Michigan Materials -Bechtel proposed that the entire plant be tested. The test plan submitted for the VE testing was found to be acceptable.

Safety apparel required:

Hard hat, safety glasses with side shields, hearing protection, steel-toed boots, and high visibility safety vest.

Arrival:

As I approached the site, I saw no signs of fugitive dust leaving the site. Weather conditions were mostly cloudy, humid, and 81 degrees F, with winds out of the south southwest at 10-15 miles per hour.

I arrived at 12:45 PM, and parked where staff directed me to. I was able to see a large water truck applying water to unpaved site roadways. I noted that unpaved roadways had recently been treated with calcium chloride.

I met with Mr. Jeffrey Wilson, President, Mr. Robert Wilson, Vice President, and Ms. Kathleen Anderson, President of Axis Environmental Consulting Corp. We discussed the company's plans for conducting the VE testing. It was explained that due to the large number of crushers, screens, conveyors, etc., onsite, it would take days to complete the testing. There were 2 certified Method 9 VE readers in addition to Ms. Anderson. I was currently certified, but my schedule did not allow me to stay at the site long enough today to take readings.

Inspection:

Mr. Rob Wilson and Ms. Anderson showed me around the site, to introduce me to the complex layout of

equipment. About 50-60% of the plant was new, I was shown. I noted use of water spray bars, and that, in a number of locations, covered conveyors were used. The material being handled was adequately wet, and freefall distances from conveyors were very minimal, so that there was no fugitive dust observed.

The testing was being conducted pursuant to Subpart 000. In regard to the duration of the VE readings, AQD Technical Program Unit employee Tom Gasloli had previously directed me to 40 CFR Part 60, Subpart 000, Section 60.675(c)(3), which reads:

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

Note: for addressing emissions of mist (water droplets) from non-metallic mineral processing plants, Section 60.675(c)(1)(iii) states:

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

I was advised that the mini-wash plant is part of the crush plant. In fact, it is the west circuit of the crush plant. The crush plant output is 250-300 tons per hour (TPH), with the output dependent on running through a wet screen. The wash plant raw feed is 325-350 TPH, I was told. The primary plant, which feeds both of these operations, however, is said to have a capacity of 600 TPH. As needed, a Findlay screening plant onsite can operate at 225-250 TPH, to screen out sand, I was advised, though it was not running today.

The wash plant VE readings were conducted last week, I was informed. I was shown that all the VE results were 0% opacity.

We observed cone crusher #2022, into which two conveyors provided material, from opposing directions. The crusher is a Metso HP300, Serial Number 30311751, manufactured in November 2018. It was running at 150-200 TPH. It and the two conveyors feeding into it were labeled with their Device IDs, as required by General PTI No. 150-02. From the second story of their control room, I could not see any visible emissions. It was pointed out to me that the cone crusher has a rubber-lined funnel, to avoid excess wear on the cone and avoid segregation of the raw material, and this also has the benefit of providing noise and dust control.

At ground level, I thought I saw opacity coming from an overflow chute on cone crusher #2022, but this turned out to be a fine mist of water droplets. The only opacity that could be seen was intermittent opacity of 5% from the underside of one of the conveyors, #1047, feeding into the cone crusher from the north. On #1047, a belt scraper was removing damp material from the underside of the conveyor, and this dislodging of material was creating opacity. The dust did not look as if it would exceed the permitted limit of 5% from a conveyor, over a 6-minute average.

A Diester screening process #2023 was a dry process, but the feed box above it had a spray bar, I was told. A nearby Diester screening process #2024 was not in use at the moment, but had 8-10 spray bars, I was informed, at least 1 for each deck.

At 2:35 PM, I left the site. I was advised that the VE test report would be submitted within the time frame allowed by General PTI No. 150-02.

Conclusion:

No instances of noncompliance were observed. A copy of the visible emissions test report was received by the AQD Lansing District Office on 9/11/2019, for review. All of the readings indicated compliance with the limits in General PTI No. 150-02.

NAME 

DATE 9/30/2019

SUPERVISOR B.M.