

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

B468659251

FACILITY: Great Lakes Aggregates, Taylor plant		SRN / ID: B4686
LOCATION: 6873 INKSTER RD, TAYLOR		DISTRICT: Detroit
CITY: TAYLOR		COUNTY: WAYNE
CONTACT: Jordan Stol , Operator		ACTIVITY DATE: 08/11/2021
STAFF: Samuel Liveson	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

On Wednesday August 11, 2021, AQD staff (Sam Liveson) conducted a scheduled inspection of Great Lakes Aggregates – Taylor Plant located at 6873 Inkster Road in Taylor, Michigan. The purpose of this inspection was to determine the facility’s compliance with the federal Clean Air Act; Part 55, Air Pollution Control, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; the Michigan Air Pollution Control Rules; the conditions of Permit to Install (PTI) No. 81-00; and the federal Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60 Subpart 000).

AQD arrived on site at 9:22 AM. The temperature was 77 °F. Wind was coming from the southwest at 7 miles an hour according to weather station KMITAYLO11 on wunderground.com (located about 1 mile east of the facility). Weather was partly cloudy.

Announced Inspection

AQD inspections are often unannounced. However, due to health concerns related to the Delta variant of COVID-19, and due to the intermittent nature of crushing facility operations, AQD provided 24-hour notice of the inspection to the facility.

Opening Discussion

Personal Protective Equipment (PPE)

Safety shoes, safety glasses, a hardhat, and a reflective vest were worn by AQD on site.

Parking and Arrival

On site, driving to the right of the weigh scale, with the fence along the right, parking is available when turning right around the fence corner. AQD called Mr. Tom Downs, Operating Manager, who was in Ann Arbor the day of the inspection. Mr. Downs reached out to site contacts Mr. Jordan Stol, Operator, and Mr. Dale Davis, Lead Mechanic. Mr. Stol and Mr. Davis met AQD in the parking area for a discussion before we walked to the crushers and operating equipment on site.

General Facility Overview

Great Lakes Aggregates currently operates two crushers at this facility. The crushers are stationary; they were installed with cranes around June of 2020. The first crusher is a jaw crusher. This jaw crusher feeds into the second crusher, which is a horizontal shaft impactor. Conveyors on site are also recently installed. Previous equipment that had been installed in March of 2000 has been removed.

Received Concrete

Concrete to crush is received from roads in the area. Currently, much of the facility’s concrete is received from I-275 and the Detroit Metropolitan Airport. AQD observed trucks arriving, backing up to a pile of concrete to be crushed, then raising their truck beds and driving forward to dump their concrete slabs. Bricks and building concrete are not received. This ensures that future concrete meets state specifications. Rebar from received concrete is pulled out by a magnet. The metal rods go out to a scrapyard.

Facility Walkthrough

Crushing

AQD observed a front loader pick up concrete slabs and unload them into the feeder of the jaw crusher. With the AQD in their vehicle facing northeast, while the sun appeared to be in the 140° sector to their

back as per Method 9, minimal opacity was observed during loading. Opacity generally appeared to be less than 15%. Additional crushing was observed while walking to the site.

Water Control and Supply

To control visible emissions, water is the main control used. The facility has its own 3,000 gallon water truck that can be filled 4 or 5 times a day. Facility records indicate that five waterings occurred on August 5, 2021, and four waterings occurred on July 28, 2021. The truck is filled with water from two small retention ponds on site; one pond is near Inkster to the left of the facility main entrance, and the other is at the southwest corner of the site. Gas pumps are used to fill water trucks. AQD did not observe gas pumps or water sources on site. The retention ponds are visible from a satellite view of the facility.

Emergency Engine-Generator

This year, Great Lakes Aggregates installed a propane-fired emergency generator for their computer network. Mr. Davis explained the generator runs for maintenance purposes weekly on Mondays at 12:25 PM for 15 to 30 seconds. From observing the size of the generator, it appears to be less than 100 HP, and appears to be a new Generac model similar to a whole-house generator. In a follow-up email on August 30th, AQD provided Mr. Stol with a link to the federal standard 40 CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. AQD recommended the facility conduct maintenance as recommended by the manufacturer, and keep records of maintenance conducted, per §60.4243(a) and §60.4243(b)(1).

AQD departed off-site at 10:49 AM.

Emission Units and Compliance Status

FGCRUSHING – PTI 81-00 - Special Conditions and Compliance Determination

SC(s)	Brief Condition Summary	Result	Explanation						
I.C.1-10	Visible emission limits from equipment	Compliance	The visible emissions that were observed while the crushing plant was operating appear to be below the opacity limits listed in this permit.						
II.A.1	Material limit of 2,000,000 tons per year of non-metallic mineral crushing	Compliance	Facility records indicate the following amounts crushed: <table border="1"> <thead> <tr> <th>Year</th> <th>Tons crushed</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>290,145.6 as of 12/22/2020</td> </tr> <tr> <td>2021</td> <td>203,759.0 as of 8/10/2021</td> </tr> </tbody> </table> These tons crushed are below the material limit of 2,000,000 tons per year.	Year	Tons crushed	2020	290,145.6 as of 12/22/2020	2021	203,759.0 as of 8/10/2021
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II.B.1	Particulate emission limit from baghouses	Not Applicable	From observations and talking with site contacts, there are no baghouses or dust collection devices on site.						
III.A.1,2	Daily and annual records of material processed	Compliance	AQD received daily records from July 27, 2021 through August 10, 2021 with total processed buckets from the front end loader. Each bucket is estimated at 10 tons. Annual records for 2020 and 2021 through August 10, 2021 were also provided.						
III.B.1,2,3,4	Testing per 40 CFR Part 60 Subpart OOO within 180 days of startup of FGCRUSHING.	Compliance	Initial startup of the facility occurred on May 15, 2000. Opacity testing for the facility occurred on August 3, 2000.						
IV.1	Notification of facility startup within 15 days of initial startup	Compliance	Initial startup of the facility occurred in March 2000. Notification of startup was submitted on May 23, 2000.						
IV.2	Label equipment within 45 days after initial startup.	Non-compliance	Equipment did not appear to be labeled. AQD discussed labels with Mr. Stol and Mr. Davis.						
IV.3		Compliance							

SC(s)	Brief Condition Summary	Result	Explanation
	Crushers and screens shall be equipped with a water spray.		Well water is sprayed into the jaw crusher, into the area under the crusher where most of the dust is generated. Well water is also sprayed into the shaft impactor crusher. AQD observed the red hose leading into this crusher. Water is also sprayed on screens. AQD observed that concrete being conveyed onto piles was wet from spraying.
IV.4	Implement Appendix A of the permit for fugitive emission control.	Compliance	See the Appendix A Conditions and Compliance Discussion below.
IV.5	Asbestos tailings or asbestos-containing waste shall not be crushed.	Compliance	Building material and brick are not accepted materials. This ensures that future concrete will meet state specifications.
IV.6	2,000,000 tpy limit does not apply with a site-specific permit	Not Applicable	Great Lakes Aggregate – Taylor Plant does not have a site-specific permit.
V.1	Meet general permit applicability criteria when replacing or modifying equipment.	Not evaluated	Applicability criteria will be evaluated upon receiving EQP5756 forms for newly installed equipment.
V.2	Submit a new Process Information Form (EQP5756) 10 days before installing new equipment.	Non-compliance	Facility equipment was replaced around June of 2020 without the facility submitting EQP5756.
V.3	New untested equipment shall comply with Subpart OOO testing requirements.	Non-compliance	Great Lakes Aggregates did not test the equipment via Method 9 within 180 days of startup (startup occurred around June of 2020). Method 9 appears to be the test required per 40 CFR 60.672(b) and 60.675 (c).
V.4	Notify AQD within 15 days of startup of any new equipment.	Non-compliance	AQD did not receive notification within 15 days of startup of equipment replaced around June of 2020.
V.5 (a)-(d)	Equipment relocation requirements.	Not Applicable	The operating address of FGCRUSHING has not changed.

Appendix A-Fugitive Dust Control Plan – PTI 81-00 – Conditions and Compliance Determination

Brief Section Summary	Result	Explanation												
I.A Control roadway dust with water, CaCl ₂ , etc.	Compliance	The facility road is generally unpaved. Below are water application times for the last two weeks based on records received. From discussions on site, calcium chloride is applied once in a while, not often.												
		<table border="1"> <thead> <tr> <th>Date</th> <th>Water Application Times</th> </tr> </thead> <tbody> <tr> <td>8/10/2021</td> <td>2:00 PM</td> </tr> <tr> <td>8/9/2021</td> <td>6:30 AM, 11:20 AM</td> </tr> <tr> <td>8/7/2021</td> <td>7:00 AM, 10:20 AM</td> </tr> <tr> <td>8/6/2021</td> <td>6:30 AM, 1:00 PM</td> </tr> <tr> <td>8/5/2021</td> <td>6:30 AM, 8:30 AM, 11:30 AM, 2:20 PM, 3:30 PM</td> </tr> </tbody> </table>	Date	Water Application Times	8/10/2021	2:00 PM	8/9/2021	6:30 AM, 11:20 AM	8/7/2021	7:00 AM, 10:20 AM	8/6/2021	6:30 AM, 1:00 PM	8/5/2021	6:30 AM, 8:30 AM, 11:30 AM, 2:20 PM, 3:30 PM
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			8/4/2021	7:00 AM, 10:00 AM, 3:40 PM
			8/3/2021	7:00 AM
			8/2/2021	7:00 AM, 10:45 AM, 1:30 PM
			7/31/2021	7:00 AM
			7/30/2021	7:00 AM, 1:00 PM
			7/29/2021	10:40 AM, 1:00 PM, 3:00 PM
			7/28/2021	6:15 AM, 10:30 AM, 1:30 PM, 2:30 PM
			7/27/2021	6:30 AM, 1:00 PM
			7/26/2021	11:00 AM, 1:15 PM, 2:45 PM
I.B	Sweep roadways as needed.	Compliance	Great Lakes Aggregate hires a company to sweep a quarter mile down the road in both directions and sweep paved areas on site.	
I.C	Clean up spillage immediately.	Not evaluated	No spills were observed to be cleaned up.	
II.A	Minimize drop distance at each transfer point.	Compliance	Conveyor transfer points appear to have minimal drop distances. Transfer points from re-circulating belts to feed belts were not evaluated.	
III.A	Minimize drop distance when stockpiling.	Compliance	Until a pile reaches its maximum height, the conveyor is raised with the pile. Then the conveyor rotates sideways and product trickles down the side of the pile. This maintains a consistent pile height and a minimal drop distance.	
III.B	Water stockpiles as needed. Keep records of watering.		AQD observed that aggregate dropping onto piles was wet. Great Lakes Aggregate explained that if this is not sufficient to keep dust down, a nozzle on the water truck can be used to water stockpiles. Daily records were provided from July 26, 2021 through August 10, 2021.	
IV.A	Truck contents should be lower than six inches from top of truck bed, or tarped to prevent blowing, etc.	Compliance	During the inspection, in two trucks unloading concrete, bed pile height appeared to be lower than the bed side height, and concrete was not blowing.	
V.A	Adjust this plan as needed.	Not Applicable	AQD did not identify any adjustments needed in the Appendix A Fugitive Dust Control Plan.	

40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants
Great Lakes Aggregates – Taylor Plant is subject to 40 CFR Part 60 Subpart OOO. Amendments to 40 CFR Part 60 Subpart OOO were finalized April 28, 2009. The subpart now contains additional requirements that apply to affected facilities constructed, modified, or reconstructed on or after April 22, 2008.

If the facility commenced construction, modification, or reconstruction on or after April 22, 2008, and does not meet the exemption in 40 CFR 60.670(d)(1), it appears the facility must perform monthly periodic wet suppression system inspections to check that water is flowing to discharge spray nozzles per 40 CFR 60.674(b), and must keep records of those inspections per 40 CFR 60.676(b)(1). Additionally, fugitive emission limits for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations, or from any other affected facility appear to have a 7 percent opacity limits (or the facility would be subject to opacity limits in their permit if those are more stringent). Crushers appear to have a 12 percent opacity limit.

MAERS

The facility's Michigan Air Emissions Reporting System (MAERS) report for emission year 2020 was received March 9, 2021. The report was timely and complete. The source is fee category D because it's subject to 40 CFR Part 60 Subpart OOO.

Conclusion

Great Lakes Aggregates – Taylor Plant is not operating in compliance with all applicable requirements. The facility will receive a violation notice. Fugitive emissions appear to be well controlled, and records were provided timely. The facility is working with their environmental contact to resolve remaining issues.

NAME DATE 9/23/2021SUPERVISOR JK