

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

D204459694

FACILITY: Superior Materials LLC		SRN / ID: D2044
LOCATION: G-5300 N. Dort Highway, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Brady Glomski , Area Manager		ACTIVITY DATE: 09/03/2021
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

On 9/3/2021, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division conducted an unannounced, scheduled inspection of the Superiors Materials, LLC concrete batch plant located at G-5300 N. Dort Highway, in Flint. The purpose was to determine compliance with the conditions of their air use permit, and applicable state rules.

Environmental contact:

Brady Glomski, Area Manager; btglomski@superiormaterials.net

Facility description:

This facility is a stationary concrete batch plant, equipped with baghouses/fabric filters for dust control purposes.

Emission units:

Emission unit*	Control equipment	Permit to Install or Rule	Compliance status
9 drive-over hoppers	NA	417-97	Compliance
8 aggregate bins	Covered	417-97	Compliance
Main aggregate conveyor	Covered	417-97	Compliance
4 cement silos	4 baghouses	417-97	Compliance
Weigh hopper	Enclosed within building	417-97	Compliance
Central mixing drum	Exhaust ducted to new baghouse	417-97, Michigan Air Pollution Control Rule 285(2)(d)	Compliance
Plant yard/roadways		417-97	Compliance

	Area paved with concrete, swept and watered as needed		
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***An emission unit is any part of a stationary source which emits or has the potential to emit an air contaminant.**

Regulatory overview:

This facility has an existing air use permit for the concrete batch plant, Permit to Install No. 417-97. This facility is classified as a *true minor source for criteria pollutants*, that is, those pollutants for which a National Ambient Air Quality Standard exists. These include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, lead, particulate matter smaller than 10 microns (PM-10), and particulate matter smaller than 2.5 microns (PM2.5). A *major source* has the potential to emit 100 tons per year (TPY) or more of at least one of the criteria pollutants.

The facility is not known to be a source of hazardous air pollutants (HAPs), so it is considered an *area source*, i.e. a minor source, for HAPs. A facility would be considered a *major source for HAPs* if it had either PTE of 10 TPY of a single HAP, or 25 TPY of all HAPs combined.

I have been advised that the facility has a natural gas-fired boiler, which creates steam with which to heat aggregate during winter operations. This is a Cleaver Brooks boiler, Michigan LARA boiler number MIR378850, and is reported to have a 50 gallon capacity. It is my understanding that it was installed in 1996, with a heat input rating of 1,200,000 Btu/hr. It appears to meet the permit exemption criteria of Rule 282(2)(b)(i), as it has a heat input rating below 50,000,000 Btu/hr.

I have also been advised that the facility has a Kemco 300 gallon, natural gas-fired water heater, to heat actual batch water for mixing concrete. It is said to have been manufactured in 1998, and installed in 2010, with a heat input rating of 4,500,000 Btu/hr. It meets the permit exemption criteria of Rule 282(2)(b)(i), as it has a heat input rating below 50,000,000 Btu/hr.

A natural gas-fired *boiler* at an area source of HAPs would not be subject to 40 CFR Part 63, Subpart JJJJJJ, *National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, under Section 63.11195(e), while a hot water *heater* at an area source would not be subject, under Section 63.11195(f). To meet the definition of a hot water heater in this area source Generally Achievable Control Technology (GACT) standard, the unit must be no more than 120 gallons in capacity. AQD has not been delegated authority to enforce Subpart JJJJJJ.

The 50 gallon boiler and the 300 gallon water heater described above both appear as if they would be exempt from 40 CFR Part 63, Subpart JJJJJJ, being natural gas-fired, at an area source of HAPs.

Fee status:

This facility is not considered fee-subject, for the following reasons.

- It is not a major source for criteria pollutants.
- It is not a major source for Hazardous Air Pollutants (HAPs),.
- It is not subject
- It is not subject to federal Maximum Achievable Control Technology standards.

The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is located in a heavily industrialized area of Flint, along North Dort Highway. The nearest residences are over 2,000 feet to the west of the batch plant.

Recent history:

In 2006, Superior Materials purchased this facility from Kurtz Gravel Co. The AQD does not have any records of any complaints having been made against this facility. AQD most recently inspected this facility on 11/12/2014. No instances of noncompliance were found.

Arrival:

I arrived at 10:57 AM. Weather conditions were mostly cloudy and 68 degrees F, with winds out of the southeast at about 5 miles per hour. The plant yard and roadways, which were paved with concrete, appeared very clean, and I saw no fugitive dust being stirred up. The plant appeared to be running. I noted that there was no dust from the drum mixer, or from the four siloes, with their roof-mounted individual baghouses.

In the onsite office, I introduced myself to an employee, and explained the reason for my visit. He directed me down a hall to meet with Mr. Brady Glomski, Area Manager, who had been the environmental contact during my 2014 inspection here.

Per my request for copies of 2020 calendar year recordkeeping, Mr. Glomski photocopied their 2020 **AIR PERMIT MONTHLY PRODUCTION LOG**, and their 2020 **AIR PERMIT COMPLIANCE MAINTENANCE LOG**. Please see attached.

The 2020 **AIR PERMIT MONTHLY PRODUCTION LOG** lists monthly production, and days operated per month, for for the year. The log instructions state, *In order to stay in compliance with our air permit exemptions we must maintain a record of our monthly production of concrete. Please write in your monthly yardage for review by DEQ personnel. Once a year fax a copy of this report to Matt Woloszyk at 248-852-0637.*

Although the plant has an existing PTNo. 417-97, it appears that the plant is being operated by the company so that it can satisfy the MAPC Rule 289(2)(d) permit exemption for a concrete batch plant, which specifies, in part, that the plant shall not produce more than 200,000 cubic yards per year.

Production for 2020:

Month	Production days	Yardage
January	25	1064.25
February	21	809.00
March	16	1065.00
April	12	704.00
May	21	2100.75
June	22	2647 .00
July	25	1793.50

August	23	2752.75
September	25	5166.00
October	26	5816.75
November	20	2649.00
December	22	3300.00
TOTAL:	258	29,868.00

From the 2020 data, shown above, it appears as if the plant is far below the 200,000 cubic yard upper limit of the exemption. I had not noticed that the company was attempting to abide by the exemption at the time of the inspection, so I was focused on determining compliance with the existing air permit. However, I did not see any issues, while onsite, which would disqualify this plant from meeting the exemption criteria.

The exemption criteria do not conflict with the air permit, so the company may continue to operate under both the permit and the exemption, or they may choose to void the permit at their discretion, and abide by the exemption.

Inspection:

I walked around the facility, taking note of the various emission units, as described below.

9 drive-over hoppers; PTI No. 417-97:

The drive-over hoppers have grates above them, and trucks unload their aggregate through these grates. A tunnel conveyor carries desired types and quantities of aggregate to the main aggregate conveyor. I saw a very minimal amount of fugitive dust from a front end loader on the other side of the hoppers.

Main aggregate conveyor; PTI No. 417-97:

The aggregate conveyor from the aggregate bins to the batch plant is covered/enclosed. This appeared as if it would be effective at preventing winds from entraining fugitive dust. There were no fugitive emissions of dust observed from it, during the inspection. The height of the conveyor is 90 feet, according to the original permit application.

4 cement silos, with baghouses, PTI No. 417-97:

There are 4 cement silos, located atop the roof of the batch plant, along the south end of the roof. Each silo is equipped with a baghouse. No visible emissions were observed. The baghouses have a shaker-style mechanism for cleaning the bags, the original permit application indicates. From the 2014 inspection, it is my understanding that they do periodic inspections of the baghouses, and replace bags as needed.

Under the 2020 *AIR PERMIT COMPLIANCE MAINTENANCE LOG*, the following activities were entered, under *DUST COLLECTOR PM*:

- 2-12-20 clean pipe

- 5-22-20
- cleaned bags 5-29-20
- cleaned bags & pipes 8-3-20
- cleaned bags & pipes 11-30-20

PTI NO. 417-97 Special Condition No. 15 states that the applicant shall not operate the equipment unless the bagfilters are installed and operating properly. They appeared to be operating properly, at the time of the inspection.

Central mixing drum; PTI No. 417-97, and MAPC Rule 285(2)(d):

There is only one weigh hopper at the plant, as opposed to the two indicated in the permit engineer's notes for PTI No. 417-97.

The central mixing drum once exhausted to a green box-like structure which, I was informed in 2014, was a dust collector. During the 2014 inspection, Mr. Glomski had indicated they would like to add a small 5th baghouse to the plant, to replace it. The replacement unit would collect the dust in a hopper, then route that dust into their flyash silo, using an existing blower, instead of sending the dust to the stone bin like the original unit. The flyash silo is one of the 4 silos already controlled by a baghouse. I had explained in 2014 that the new baghouse should satisfy the criteria for replacing air pollution control equipment with equivalent or more efficient equipment.

The company replaced the green dust collector with a large, cylindrical baghouse, painted white. Near the top of the baghouse it was identified as a Besser Appco Division dust collector. There were no visible emissions from the baghouse. It appeared as if it would meet the exemption criteria of Rule 285(2)(d), for replacing air pollution control equipment with equivalent or more efficient equipment.

Note: the above exemption was known as Rule 285(f), at the time of the 2014 inspection.

I met the plant operator, Jeff. He explained that the new baghouse begins to operate automatically, as soon as the ticket is printed for a truck to be loaded out, and it automatically stops, after the truck has been completely loaded out.

I asked if Jeff could show me the 2021 *AIR PERMIT MONTHLY PRODUCTION LOG*, and their 2021 *AIR PERMIT COMPLIANCE MAINTENANCE LOG*, so I could verify that the records were being kept. Jeff showed me these records, and I did not feel the need to request photocopies at this time. I noted that in August 2021, production was 2,201.25 cubic yards, over 23 days.

Plant yard/roadways, PTI No. 417-97:

As noted earlier in this report, the plant yard and roadways were paved with concrete. The area looked like it had been swept recently. I saw a number of 3-side storage bins for aggregate, which can be very effective at preventing wind erosion from storage piles.

From their 2020 log of maintenance activities, I checked actions taken to control fugitive dust. It looked as if the yard was swept on numerous days in 2020, dust suppressants were applied on 6-27-2020 and 8-25-2020 (not specified if water or calcium chloride), and stockpiles were watered on 3 occasions.

In 2021, Jeff told me that they did not have to sweep the yard at all during July, because of all the heavy rains. Yard sweeping was most recently done on 8/24, he advised.

As I was preparing to leave the site, I noted that the wind had picked up, to 10-15 miles per hour, out of the east southeast. I did not see any fugitive dust issues at the site at this time.

Conclusion:

I could not identify any instances of noncompliance. I left the site at 11:44 AM.

NAME Daniel A. Mason

DATE 9/20/2021

SUPERVISOR B.M.