

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

P088945737

FACILITY: Homer Concrete Products		SRN / ID: P0889
LOCATION: 7015 Enterprise Drive, Brown City		DISTRICT: Lansing
CITY: Brown City		COUNTY: LAPEER
CONTACT: Jeremy Homer , Owner		ACTIVITY DATE: 08/23/2018
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Scheduled inspection of existing facility which recently received a PTI and an ACO.		
RESOLVED COMPLAINTS:		

On 8/23/2018, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of Brown City Concrete, doing business as (dba) Homer Concrete Products.

Facility environmental contact:

Jeremy Homer; Manager; 810-724-3905, HomerConcrete@aol.com

Buck Maloney, Plant Operator; 810-346-3571

Facility description:

This facility is a concrete batch plant.

Emission units:

Emission unit* ID	Emission unit description (process equipment & control devices)	Flexible group ID	Permit to Install (PTI) No.	Compliance status
EU-BATCHPLANT	A CMI Johnson Ross enclosed concrete batch plant with a covered material conveyor, weightbatcher, material bins, cement silos, telescoping discharge chute, a cartridge pulse central dust collector, and a voluntarily installed baghouse for silo loading control	FGPLANT	7-18; Consent Order AQD No. 2018-05	Compliance
EU-YARD	Fugitive dust sources including: Plant roadways, plant yard, material storage piles, and material handling operations	FGPLANT	7-18; Consent Order AQD No. 2018-05	Compliance

* An *emission unit* is any part of a stationary source that emits or has the potential to emit an air contaminant.

Flexible group summary table:

Flexible group ID	Flexible group description	Associated Emission unit IDs
FGPLANT	A CMI Johnson Ross enclosed concrete batch plant with a covered material conveyor, weightbatcher, material bins, cement silos, telescoping discharge chute, a cartridge pulse central dust collector, and a voluntarily installed baghouse for silo loading control	EU-BATCHPLANT EU-YARD

Regulatory overview:

This facility is considered a *minor source* rather than a major source for *criteria air pollutants*, that is, those pollutants for which there is a National Ambient Air Quality Standard (NAAQS). These pollutants 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* would have the Potential to Emit (PTE) 100 tons per year (TPY) or more of one of the criteria pollutants, and would therefore be subject to the renewable Operating Permit program.

The facility is considered to be a minor source, or area source, for Hazardous Air Pollutants (HAPs). A major source of HAPs has a PTE of 10 TPY or more of a single HAP, or 25 TPY or more of aggregate HAPs.

This facility received Permit to Install (PTI) No. 7-18 on 2/6/2018, for the concrete batch plant. It also received the State Registration Number (SRN) P0889. It had previously operated as exempt from the requirement of Michigan Air Pollution Control Rule 201 to obtain a permit to install, under Rule 289, which exempts concrete batch plants meeting certain criteria. In 2017, it was determined to no longer meet all the exemption criteria, and a PTI was needed.

The facility has a consent order, No. AQD No. 2018-05., to resolve a past violation of Rule 201, for not continuing to meet all the exemption criteria.

Fee status:

This facility is not considered to be Category I fee-subject, because it is not considered a major source. This facility is not considered Category II fee0subject, because it is not a major source for HAPs, nor is it subject to any federal New Source Performance Standards regulations. Lastly, it is not considered Category III fee-subject, because it is not subject to any federal Maximum Achievable Control Technology regulation.

Location:

The facility is in rural Lapeer County. It is located at the far west end of an industrial park, at the corner of M-53 (Van Dyke Road) and Enterprise Drive. To the east are fields followed by commercial or industrial businesses. To the immediate south are commercial and/or industrial businesses. To the north is undeveloped land, Further south are farm fields. To the west is a residence located about 390 feet from the batch plant, as measured in Google Maps. Beyond this residence is woodland.

Recent history:

On 8/20/2015, the AQD first visited Homer Concrete Products, a facility which the agency had been unaware of. This was in response to a complaint received of dust. The plant was found to be in compliance at that time with the Michigan Air Pollution Control Rules.

On 8/28/2015, the AQD conducted an unannounced inspection of the batch plant, and documented compliance with the Michigan Air Pollution Control Rules. The facility appeared to satisfy the Rule 289 exemption criteria, and was not required to obtain a PTI.

In 2017, AQD received several complaints alleging excessive dust from the batch plant, when bulk cement deliveries were being made to refill the silos at the plant. AQD conducted a complaint investigation on 7/18/2017, and observed excessive fugitive dust from the filling of a concrete storage silo. It was determined by AQD that the Rule 289 exemption criteria were no longer met. A Violation Notice (VN) was sent for Rule 201 on 8/16/2017, and a subsequent one was sent on 9/28/2017. The company met with AQD staff, and AQD was informed that corrective actions would be taken to prevent excessive dust in the future. The facility received PTI No. 7-18 on 2/20/2018. Consent Order AQD No. 2018-05 was signed on 4/18/2018 and became effective on 5/9/2018.

No complaints have been received in 2018.

Safety apparel required:

I am not aware of site requirements, but would recommend safety glasses with side shields and steel-toed boots. A high visibility safety vest would be appropriate, because of truck traffic around the plant.

Arrival:

This was an unannounced inspection, to check compliance with the new PTI and Consent Order.

As I approached the site from a distance, I saw that there were no signs of dust from the concrete batch plant. Weather conditions were clear and 79 degrees F, with winds about 10 miles per hour out of the west.

As I neared the site, it appeared that a bulk delivery was being made of cement and/or fly ash from a truck. No dust was seen from this activity. A arrived at 12:28 PM. As I parked next to the office, I was able to see water and damp areas in the plant yard and unpaved roadways. This appeared to indicate that water had been applied to unpaved areas earlier today. I could hear the sound of the original baghouse being cleaned by pulse jets, and there were no emissions of dust from either the baghouse or the batch plant itself.

I met with Mr. Jeremy Homer, Manager, and Mr. Buck Maloney, Plant Operator. Per AQD procedures, I was wearing inspector identification. I was informed that business has been a bit slow this year. Much of the work they do is for farmers, who are being economically impacted by tariffs on exported agricultural products, so they are not doing as much new construction.

Inspection:

I asked if Mr. Homer indicated required repair/upgrade work was done on the plant before the 4/1/2018 date specified in the consent order. He indicated that the work was done in time.

I was advised that they eliminated two vents atop the concrete storage silo which had previously released emissions of dust, and replaced them with a pressure-activated safety release vent. They explained that the previously damaged siding on the plant was replaced, and that they replaced ductwork lines on the outside of the plant with larger, 5 inch diameter lines that can easily be disassembled and cleaned. They added that they voluntarily installed a new dust collector (a baghouse), to control dust from bulk delivery. I was told that they felt it would be better to have a second baghouse, than to have just one control the entire plant.

I observed the loadout of a cement truck in the 3-sided enclosure which is the loadout bay of the plant. The overhead dust collection system is controlled by the original baghouse of the plant. I was advised that they have improved this dust collection system by installing a new duct, and increasing the amount of suction or vacuum. The system appeared to be very effective at capturing dust generated during loadout. Please see attached photo of dust being drawn into two overhead intakes. I did not witness any dust exit the loadout bay. I believe that there is a door which would completely enclose the loadout bay, but it appears that the length of the cement trucks would prevent this door from being enclosed during loadout operations. This did not appear to be a problem, because of the effectiveness of the emission capture and control system.

Note: I did not think to get a pressure drop reading off of the original baghouse. This can be done at some point, during a future inspection.

I was advised that I could view the new baghouse in the top of the batch plant, which was voluntarily installed to control dust from filling of the cement storage silo. I was directed to a long, sloped catwalk which runs parallel to the covered conveyor belt. The catwalk enters the enclosed tower that surrounds the batch plant at a height of 87 feet. Please see attached photos.

I walked up the catwalk, into the doorway where the conveyor enters the enclosed tower. AQD staff should be aware that a large flock of pigeons has taken up residence in the top of the tower, and that they are easily alarmed. Several or more pigeons flew on either side of my face, and the effect was somewhat startling. Once inside the tower, I saw the new cylindrical baghouse which was installed. It appeared to be running at this time. No airborne fugitive dust was observed. Small, dark splotches on the baghouse in the attached photo are pigeon droppings. It does not appear essential that AQD staff examine the new baghouse during each inspection of this facility, as the height of the catwalk is a potential safety concern.

I was advised that they have brined plant roadways with calcium chloride (CaCl) about 1 month ago, and they will do it again shortly. The chloride has not lasted as long this summer, I was told, because of the drought conditions. It is my understanding that chloride works best when there is some level of moisture present.

I was shown the new, 5 inch diameter lines for bulk deliveries, which run vertically up the exterior of the batch plant. I was advised that line to the south is for cement, while the one to the north is for flyash.

Compliance check with PTI No. 7-18 Special Conditions follows:

Special Condition (SC) FG-PLANT I. EMISSION LIMITS 1. through 4.:

All visible emission limits were being met.

SC FG-PLANT II. MATERIAL LIMITS 1:

I was informed that they keep records of concrete produced, which the permit requires. I was advised that they kept these records previously, as the State of Michigan requires it in order for state certification. I was advised that they are well below the 200,000 cubic yards of concrete which is the maximum production allowed under the current PTI. After the inspection, on 9/28/2018, I e-mailed Mr. Homer to request the total Year to Date volume of concrete produced for calendar year 2018, for our records.

SC FG-PLANT III. PROCESS/OPERATIONAL RESTRICTIONS 1:

The nuisance minimization plan for fugitive dust control appeared to be implemented and maintained.

SC FG-PLANT IV. DESIGN/EQUIPMENT PARAMETERS 1:

This condition prohibits the operation of the cement silos, the weightbatcher, and the discharge chute portions of FG-PLANT unless the cartridge pulse central dust collector is installed, maintained, and operated in a satisfactory manner. This dust collector or baghouse was operating properly. Plus, the facility has installed voluntarily a second baghouse, to control silo loading emissions, and it appeared to also be operating properly.

End of PTI No. 7-18 Special Conditions.

Compliance check of Consent Order AQD No. 2018-05 Compliance and Implementation Schedule No. 9., Permits and facility Modifications:

9. A. The company submitted a complete application for a PTI before the 1/15/2018 deadline.
9. B. The company accepted draft permit conditions within 30 days of receipt of the draft conditions.
- 9.C. Upon issuance of PTI No. 7-18, it was attached to the Consent Order as Exhibit A.
9. D. Mr. Homer indicated that ahead of the 4/1/2018 deadline in the order, they completed the following modifications:
 - both positive air charge vents on the concrete storage silo were removed; and

- all ductwork associated with the dust collector (the original pulse jet baghouse) was replaced with new ductwork that can be disassembled and cleaned.

9. E. This condition required the company to meet the Rule 289 permit exemption for concrete batch plants if it operated before the issuance of the PTI. The PTI was issued on 2/6/2018. I do not have any knowledge of the facility operating in 2018 prior to the PTI being approved.

End of Compliance and Implementation Schedule No. 9.

I did not identify any violations, nor any areas of concern. I left the site at 1:19 PM.

Conclusion:

There were no instances of noncompliance observed. The company voluntarily installed a second baghouse, going above and beyond what was required by the PTI and the consent order. No visible emissions were observed during the delivery of bulk materials.

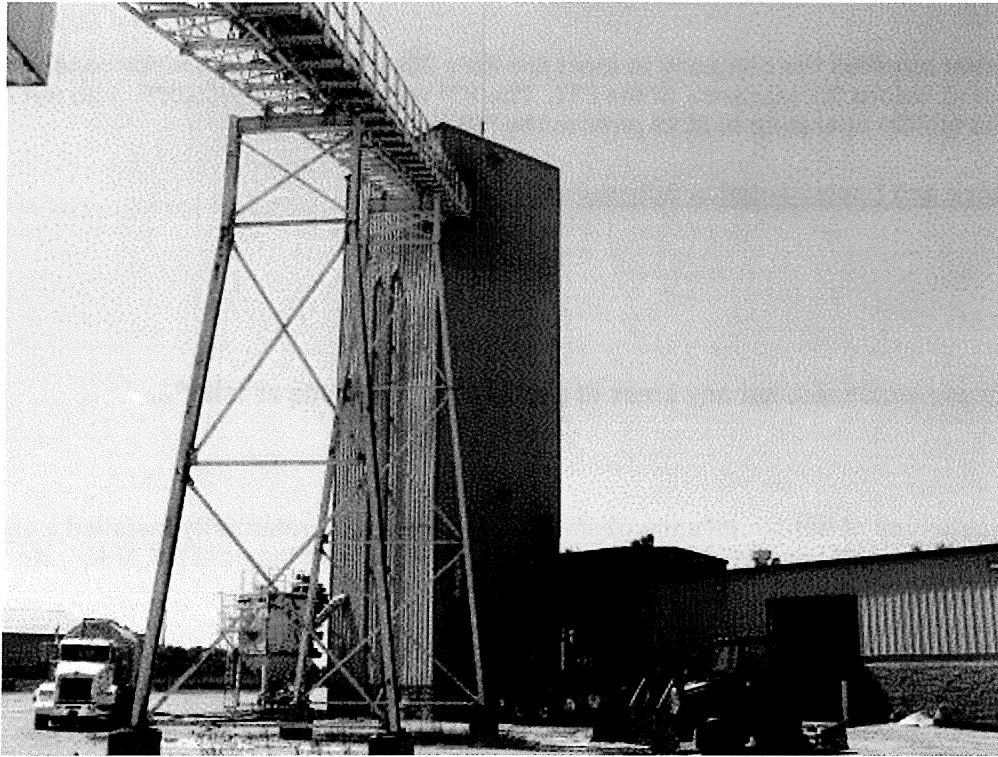


Image 1(001) : Enclosed batch plant.



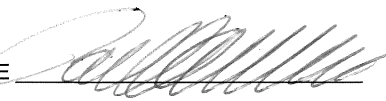
Image 2(002) : Catwalk to top of batch plant.



Image 3(003) : New baghouse, for silo control.



Image 4(004) : Truck loadout control in action.

NAME 

DATE 10/2/2018

SUPERVISOR 