

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

B6269
FY 2016 Insp

B626936780

FACILITY: Paragon Concrete Company		SRN / ID: B6269
LOCATION: 4389 LESSING DR, WATERFORD		DISTRICT: Southeast Michigan
CITY: WATERFORD		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 09/22/2016
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: FY 2016 inspection of Paragon Concrete Company ("Paragon")		
RESOLVED COMPLAINTS:		

B6269 - SAR - 2016 09 22

Paragon Concrete Company (B6269)
4389 Lessing Dr.
Waterford, Michigan 48329-1425

PTI No. 715-80 dated October 09, 1980, for existing dry portable batch plant with fabric filter.

VN: AQD issued July 24, 2015 Violation Notice for removing capture system and baghouse. A dust collector (Stephens Cartridge Filter) was installed about October 2015 at a cost of \$44,650.00.

Name change: Waterford Block & Ready Mix Inc. (B6269, PTI No. 715-80) → Paragon Concrete Company (B6269)

FY 2015 Complaint

C-15-01051 (Received: 07/09/2015; Incident: 07/08/2015; Complainant: Ms. Cynthia Roy (Phone: 248-210-0975), 4384 Lessing Dr., Waterford Michigan 48329; 901 issue: Grey cement dust allegedly from Paragon Concrete Company. About July 24, 2015, AQD issued Paragon a violation notice. Ms. Cynthia Roy lives across the street from Paragon Concrete Company.

On September 22, 2016, I conducted a level 2 self-initiated inspection of Paragon Concrete Company ("Paragon"), located at 4389 Lessing Drive, Waterford, Michigan 48329-1425. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules; and PTI No. 715-80.

During the FY 2016, inspection, Mr. Brian Britt (Phone: 248-623-0100; Cell: 248-930-8374; Fax: 248-623-3404; E-mail: bBritt@ParagonConcrete.Net), Dispatcher, and Mr. Ryan Washburn (Cell: 248-877-3273), Head Mechanic, assisted me.

During the FY 2016 inspection, Mr. Mark Danhausen (Phone: 248-623-0100; Cell: 248-930-3084; Fax: 248-623-3404; E-mail: mDanhausen@ParagonConcrete.Net), President and Owner, was out of office for a business meeting and would return after 3 pm.

During the FY2016 inspection, I observed an acceptable amount of materials on paved concrete surfaces. According to Mr. Washburn, the yard is swept once a week (usually Wednesdays) by a contractor (Roller Company) and also once per day using Paragon's

Premier Elgin Pelican wet sweeper. Paragon's Pelican sweeper picks up wet debris using metallic brushes and is not equipped with a vacuum system.

Paragon (about 70,000 cubic yards per year) may be (if and only if it meets setback distance of 250 feet and all conditions) exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1289 subject to the following conditions:

- (i) The plant shall produce not more than 200,000 cubic yards per year.
- (ii) The plant shall use either a fabric filter dust collector, a slurry mixer system, a drop chute, a mixer flap gate, or an enclosure for truck loading operations.
- (iii) All cement handling operations, such as silo loading and cement weighing hoppers, shall either be enclosed by a building or equipped with a fabric filter dust control.
- (iv) The owner or operator shall keep monthly records of the cubic yards of concrete produced.
- (v) Before commencing operations, the owner or operator shall notify the appropriate air quality division district supervisor of the location where the concrete batch plant will be operating under this exemption.
- (vi) The concrete batch plant shall be located not less than 250 feet from any residential or commercial establishment or place of public assembly unless all of the cement handling operations, excluding the cement silo storage and loading operations, are enclosed within at least a 3-sided structure.
- (vii) The owner or operator shall implement the fugitive dust plan described in the Rule 336.1289

The materials, such as aggregates, gravel, limestone, sand, etc., are stored in the open storage bins. The materials are poured into hopper using a front-end loader. From the hopper, materials are transported using a conveyor belts to four bins. From bins (4) the materials are transferred to weigh scales (underneath the bins), from which they are conveyed to a transit mix concrete truck.

Cement, flyash and steel mill slag are stored in the three separate elevated silos, each equipped with a fabric filter:

1. One 110-ton cement silo (56 bags [6 ft. tall and 3 inches diameter], Cylindrical Box, shaker mechanism with automatic timer after each load)
2. One 50-ton flyash silo (40 bags, shaker mechanism)
3. One 80-ton steel mill slag silo (40 bags, shaker).

Each dedicated shaker mechanism for the silo's baghouse (3) is activated every time material (cement, flyash, slag) loading is completed.

On July 21, 2015 (<< 5 % opacity) and September 22, 2016 (≈10 % opacity observed indicating leaks in the cement silo baghouse, to be inspected and repaired by Paragon), I observed cement loading on to the 110-ton cement silo using a pneumatic method from a truck:

Five Little Truckers, Inc.

July 21, 2015: License: BA 14676 MI, Trailer Nos. A411968 MI & A411967 MI. Less than 5 percent visible emissions (VE).

September 22, 2016: License: AC 47755 MI, Trailer Nos. A411963 MI & B959760 MI. About 10 percent visible emissions (VE) on September 22, 2016, at 11:45 am. Mr. Ryan Washburn stated he would check the baghouse for leaks. Also, Mr. Mark Danhausen would write a letter to AQD upon completing inspection and required repairs.

During the pneumatic loading of cement from a truck to the silo, while I observed less than 5 percent visible emissions (VE) at the top of the cement silo on July 21, 2015, I observed about 10 percent visible emissions (VE) on September 22, 2016. About June 4, 2015, pneumatic cement loading blew cement into the neighborhood due to misconnection of pipes / hoses.

A transit mix truck loading area

The materials are transported using an enclosed conveyor to a transit-mix truck. The truck opening area, where materials are poured, is equipped with an enclosure. The emissions from the enclosure are captured and ducted to a dry filter system (PTI No. 715-80, SC 14). The enclosure was not present before July 24, 2015, violation notice (VN).

The dust capture (an enclosure with vacuum) and dust collector equipment were installed after the July 24, 2015, violation notice (VN). Per the August 12, 2015, VN response letter, Paragon installed, about October 2015, at the cost of \$44,650.00, an enclosure and Stephens Ozone Superflow Cartridge Dust Collector (Model SOS-4000). It consists of six (6) cartridges. The dust collector is equipped with one Magneheilig pressure differential (ΔP) gauge. Pulse-jet air is used to clean the cartridge filters (1 pulse of compressed air per 30 seconds). The cartridges have never been replaced (installed about October 2015). The cartridge filters will be replaced based upon the ΔP reading.

During the FY 2016 inspection, I observed a couple of transit mix trucks being loaded with cement, flyash, slag, etc. and water. I observed during the loading visible emissions less than 5 percent indicating the dust collector was working properly (PTI No. 715-80, SC 14).

Before departure, trucks are washed. A system of settling ponds is present. The system consists of six ponds. Water flows in two directions (from right as well as from left) with two wash areas. One pond is for holding cleanest water after settling particulate matter. Arrangement of settling ponds is more complex than most transit mix concrete batch plants with two directional water flows. Flow pattern can be controlled such that all (not too fine) suspended particulate matter settles and clean water flows into one cleanest water pond. From the cleanest pond, water is reused. During water flow through weirs from one pond to the other, largest particles having highest settling velocity settle first and fine particles with lowest settling velocity settle last. Fine particulate, with very little weight and hence practically negligible gravitational forces to overcome drag forces, do not settle at all.

A cold-cleaner

There is one maintenance Safety-Kleen 3'x4' cold-cleaner. Each cold-cleaner is subject rule 336.611 or 336.1707 depending on if it is new or existing. A cold-cleaner is exempt from Rule 336.1201 pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July

1, 1979.

The cold-cleaner is of tank-on-drum type. The solvent is stored in 55-gallon drum (solvent reservoir) and pumped to the tank for cleaning. Spray brush is present. Mechanically assisted lid is present.

The required operating procedures were not posted on July 21, 2015. On July 07, 2015, I gave DEQ cold-cleaner decals for posting. I found the mechanically assisted lid closed during the FY 2015 inspection. Safety-Kleen services the cold-cleaner. It is equipped with mechanically assisted lid.

During the FY 2016 inspection, the DEQ decal was posted and mechanically assisted lid was closed.

Safety-Kleen (800-669-5740) Premium Solvent (virgin plus recycled). Petroleum Distillates
CAS 64742-47-8

100% VOC solvent. Flash Point (FP) = 148 °F TCC. Auto Ignition = 480 °F. Boiling Point (BP) = 350 (IBP) °F @ 760 mm Hg. Vapor Pressure (VP) = 0.2 / 0.6 mm Hg at 68 °F / 100 °F. Specific Gravity (SG, Water = 1.0) = 0.77-0.82. Density (ρ) @ 68 °F = 6.4-6.7 lbs. / gallon (0.770-820 kg /L). Flammability range = 0.7 %v (LEL) – 5%v (UEL). Viscosity = NA centistokes at 77 °F.

July 24, 2015, Violation Notice and FY 2015 (July 21, 2015) inspection

The materials are transported using an enclosed conveyor to a truck. The truck opening area, where materials are poured, was NOT equipped with an enclosure. The emissions from the enclosure were NOT captured and ducted to a dry filter system (PTI No. 715-80, SC 14). As a result, on or about July 24, 2015, AQD issued Violation Notice for PTI No. 715-80, SC 14 and Rule 910.

I observed a transit mix truck being loaded with cement, flyash, slag, etc. and water. I observed during the loading visible emissions up to 70 percent opacity (July 21, 2015). The visible emissions were due to not installing a fabric filter system (PTI No. 715-80, SC 14).

AQD issued July 24, 2015, Violation Notice for failure to install dust collector at transit mix loading area. As a matter fact, the loading area dust collector was removed by perhaps the previous owner. On August 12, 2015, AQD received a VN response letter that stated that a dust collector would be installed at a cost of \$44,650.00 (Stephens Model SOS-4000)

Conclusion

July 24, 2015 Violation Notice is resolved with installation a baghouse (Stephens Model SOS-4000 cartridge filter).

FY: July 24, 2015 VN.

July 24, 2015

Mr. Mark Danhausen, President
Paragon Concrete Company

4389 Lessing Drive
Waterford, Michigan 48329-1425

SRN: B6269, Oakland County

Dear Danhausen:

VIOLATION NOTICE

NAME *D. Penninghall* DATE *09/26/2016* SUPERVISOR *John B.*

