

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

P103060017

FACILITY: MCCOIG MATERIALS, LLC		SRN / ID: P1030
LOCATION: 1441 Springwells Court, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Duane Poucher , Plant Manager		ACTIVITY DATE: 09/22/2021
STAFF: Gerald Krawiec	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection for FY 2021		
RESOLVED COMPLAINTS:		

Contacts – Duane Poucher, Plant Manager (734-845-4487)
Tracy Meyerhoff, Maintenance Manager
Sarkis Rashinan, Maintenance Team Member

AQD staff conducted a scheduled inspection for FY 2021 of SRM McCoig Concrete-820 formerly known as McCoig Materials, LLC located at 1441 and 1515 Springwells Court in the City of Detroit. The purpose of the inspection is to determine the facility's compliance with applicable state and federal air pollution rules and regulations in addition to AQD Permit No. 242-10B. This year due to the current public health concerns of COVID, AQD is coordinating inspection dates with the facility. This inspection is scheduled for Wednesday September 22, 2021, with Plant Manager, Duane Poucher.

FACILITY BACKGROUND:

McCoig Materials, LLC. was issued PTI No. 242-10 on August 17, 2011. On June 12, 2019, PTI No. 242-10A was issued which modified the original permit to include the property at 1515 Springwells Court and ensure the fugitive dust plan included within the PTI is applied to both properties. On September 18, 2019, PTI No. 242-10B was issued which modified PTI No. 242-10A, in order to resolve a permit violation.

Ownership of McCoig Materials, LLC changed in November 2020. The new owner is Smyrna Ready Mix Concrete, LLC, the home office is located at 1136 2nd Ave. North Nashville, TN 37208. Doing business as SRM McCoig Concrete-820 at this location, producing wet batch ready-mix concrete for use in road construction. The company has eight (8) facilities in Southeast Michigan. The company's primary customers are contractors for MDOT.

Located in the middle of the Gordie Howe Bridge construction project. This plant on Springwells Court is now running throughout the construction season. Currently the plant is running 12 hours per day, 6 or 7 days a week. There are 9 plant employees and 23 transit mixer drivers.

The SRM McCoig Concrete-820 plant is made up of two pieces of property 1441 and 1515 Springwell Court; the properties are considered one stationary source but are not contiguous. Between the two properties is 1475 Springwells Court, which is occupied by the "Detroit-Windsor Truck Ferry" and "Department of Homeland Security". The main plant is

located at 1441 Springwells Court on 7.5-acre parcel of land, and the auxiliary yard located at 1515 Springwells Court is on 4.6 acres.

COMPLAINT and COMPLIANCE HISTORY:

There is no history of citizen complaints, and the plant was last inspected on June 3, 2019.

During that inspection on June 3, 2019, it was noted that the baghouse stacks do not exhaust unobstructed vertically out the side of the building in violation of a permit condition. A Violation Notice was issued on August 21, 2019, to McCoig Materials, LLC, the owners at that time. The company responded on September 11, 2019, stating they have applied for a PTI modification. PTI No. 242-10B was issued on September 19, 2018, resolving the VN by making the existing baghouse stack configuration acceptable. There are three (3) baghouses.

PROCESS DESCRIPTION and EQUIPMENT:

The SRM McCoig Concrete-820 Plant produces wet batch, ready-mix concrete, with each batch formulated to customer specifications. The process commonly uses portland cement, slag, and flyash in addition to other aggregates (sand, limestone, gravel), admixtures (chlorides and non-chlorides) and water mixed in a rotary drum to produce each batch. Various cements can be used in the process dependent on customer demand.

The raw materials used in concrete production are stored in six silos located on the north side of the process building. There are four 60-ton silos which store Portland cement and two 90-ton silos which each store slag and fly ash, respectively. The cement is delivered via tanker truck and pumped from the tanker to the silos. Cement deliveries are made as required.

Aggregates are delivered either by truck or boat and stored, uncovered, in segregated piles on the east side of the facility property along the river. Aggregates are either "course" (gravel, limestone) or "fine" (sand). Most of the gravel aggregate is delivered via boat, with each delivery being around 26,000 tons. The aggregate is conveyed off the boats to the storage piles, with offloading taking approximately 7 hours.

Aggregates are loaded into material hoppers by a front-end loader; there is one hopper for sand and one for gravel. The aggregate is then carried from the hopper via a long, inclined enclosed conveyor to the top of the process building and into aggregate storage bins. There are six aggregate storage bins located on the top floor of the process building – two 120-ton sand bins and four 110-ton gravel/limestone bins. All aggregates are pre-crushed prior to delivery; no crushing is performed on site.

Admixtures are stored in totes inside the building and are used in small amounts to each batch to help control curing time. Admixtures are mostly water with small amounts of chemical additives with low vapor pressure.

Water used in the production of cement product is stored in a 20,000-gallon horizontal tank located in the front of the process building. The water may be heated prior to being added to the drum mixer.

Ready-mix concrete is prepared on a per batch basis in a horizontal rotary drum, which has a capacity to process 13 cubic yards of material per batch. The cement, aggregate, and water are gravity fed into weigh hoppers and then metered into one end of the drum, along with admixture. Once the raw materials are added, the drum mixes the materials into a wet cement slurry. The wet cement is “pushed” out the other end as the drum rotates and then gravity-loaded directly into the concrete transit mixer trucks staged in loading lanes and located beneath the drum. There are two loading lanes, though only one truck can be loaded at a time. The loaded trucks then deliver the concrete product directly to the work site; each truck can hold about 11 cubic yards of cement product. SRM McCoig uses its own transit mixers and drivers for delivery.

Particulates from the processes are controlled by three identical 5,000 acfm baghouses:

- Baghouse1 controls emissions from the wet drum and aggregate weigh hopper and is located one floor above the drum. Baghouse1 is equipped with a gauge to monitor pressure; pressure drop is usually between 3” – 6” wg. If pressure exceeds 6” wg, an alarm sounds off and the baghouse is inspected and reset to a more frequent bag cleaning cycle.
- Baghouse2 controls emissions from the four 60-ton cement silos. This baghouse is located three floors above the drum. A pressure drop gauge and/or alarm is not required.
- Baghouse3 controls emissions from the two 90-ton slag/flyash silos. This baghouse is located three floors above the drum. A pressure drop gauge and/or alarm is not required.

A full inspection and bag replacement of each baghouse is performed during the off-season. Baghouses are inspected every few days during the construction season to make sure there are no leaks, and bags are replaced as necessary if leaks are detected. There are 49 bags in each baghouse. There is also a supply of replacement bags on-site in the event repair or replacement is required. Each baghouse exhausts through a horizontal stack vented out the side of the building. The dust collected from the baghouses is recycled into the process as raw material.

SRM McCoig also owns a parcel of land located just south of the plant at 1515 Springwells Court, this area is known as the auxiliary yard. The “yard” is used to store scrap concrete leftover from processing as well as additional aggregate storage. A portable crusher is contracted as needed to crush the concrete, which is then sold off as backfill to other customers. This area is also used as a parking lot for transit mixers when not in-use.

A 20,000-gallon storage tank used for diesel fuel is also located in the auxiliary yard. The fuel is used for both on road and off-road vehicles. This tank is exempt per Rule 284(2)(g)(ii). This tank is not subject to 40 CFR Part 60, Subpart Kb since the vapor pressure of diesel fuel is below 15.0 kPa, per 40 CFR 60.110b(b).

INSPECTION NARRATIVE:

Prior to this inspection surveillance was conducted of this facility on July 2, August 13, 19, and September 16, 2021. On those dates no visible emissions were observed from stacks and any visible emissions from fugitive dust or track out onto the street from this facility was minimal.

On the day of the inspection, upon my arrival there was very heavy rain, and thunder, and the plant was not operating due to the severe weather conditions (no bridge construction work going on).

Since Duane Poucher, Plant Manger has been recently transferred to this plant and admittedly does not know much about the plant, he asked to have members of his maintenance staff included in this pre-inspection meeting. Tracy Meyerhoff, Maintenance Manager and Sarkis Rashinan, Maintenance Team Member joined the meeting. Mr. Poucher also expressed that he had never experienced an inspection from EGLE/AQD however, Mr. Meyerhoff had partaken in AQD's 2019 inspection and has several years of experience at this plant. We discussed the purpose of the inspection and Mr. Poucher stated that he has copies of all the records that I requested.

I had requested to have copies (that I can take with me) of all recordkeeping/logs required by AQD Permit to Install No. 242-10B for the last 12 months. In addition, a copy of the Certificate of Alternate Compliance with Fugitive Dust Plan issued by the City of Detroit's Buildings, Safety Engineering, and Environmental Department. Examples of recordkeeping/logs would be concrete production records, Fugitive Dust Control measures taken, dates, times, etc. I explained that coordinating inspections and acquiring copies of required recordkeeping/logs is intended to reduce the amount of time that AQD staff are on site. The records will be reviewed off site and if additional information is required, it may be submitted via email.

A typical inspection would involve a detailed tour of the plant, aggregate piles, auxiliary yard, and fugitive dust control measures. Due to the extreme weather conditions and the plant not operating, this inspection becomes records review only inspection at this time. If I have questions regarding the records, I will contact Mr. Poucher.

I did have some questions that went unanswered at the time and Mr. Poucher took notes and committed to get that information to me as soon as possible. Mr. Poucher was also to get detailed information on the new ownership. I repeated that due to the rainy weather and the plant not in operation, this is a records only inspection. I also stated that in the future a full on-site inspection may take place.

The records review took place away from the facility at my remote workplace and in the office. This is a summary of those records with brief comments. Daily Record of Fugitive Dust Control Mechanisms, Contractor invoices for street sweeping and calcium chloride application (since March paved areas have been wet swept 20 times).

Regarding the Plant/Equipment, inspections are made weekly and compiled into a monthly report. The bags were changed in all three (3) baghouses in mid-March 2021. Concrete production for 2020 was 130,346 cubic yards and for 2021 is 51,860 cubic yards through August 2021 well below the PTI limit of 430,400 cubic yards of material per 12-month period. Additionally, some miscellaneous invoices for maintenance around the plant to control dust leaks, etc. are included.

In addition, the company has a Certificate of Alternate Compliance with Fugitive Dust Plan issued by the City of Detroit's Buildings, Safety Engineering, and Environmental Department.

Within a few days of the inspection, Mr. Poucher provided the new ownership information for all the plants that SRM purchased from McCoig in southeast MI, any other questions were answered, his emails are attached.

COMPLIANCE DETERMINATION:

Based upon the records reviewed and the limited on-site inspection of Smyrna Ready Mix Concrete, LLC, doing business as SRM McCoig Concrete-820 located in the City of Detroit, it appears this facility is in substantial compliance with AQD's PTI No. 242-10B and other applicable air quality rules and regulations.

NAME *S. Krawiec*

DATE 11/2/22

SUPERVISOR *JK*