

P1030  
MANILA

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

P103064662

FACILITY: SRM McCoig Concrete		SRN / ID: P1030
LOCATION: 1441 Springwells Court, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Duane Poucher , Plant Manager		ACTIVITY DATE: 09/13/2022
STAFF: Gerald Krawiec	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection for FY 2022.		
RESOLVED COMPLAINTS:		

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

AQD staff conducted a scheduled inspection for FY 2022 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 Thursday September 13, 2022, 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 2<sup>nd</sup> 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 20 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 a 7.5-acre parcel of land, and the auxiliary yard located at 1515 Springwells Court on a 4.6-acre parcel.

**COMPLAINT and COMPLIANCE HISTORY:**

There is no history of citizen complaints, and the plant was last inspected on September 22, 2021, and found in-compliance.

During an 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 May 5 and June 10, 2022. On those dates no visible emissions were observed from baghouse exhausts and any visible emissions from fugitive dust or track out onto the street from the plant was minimal. These areas had recently been swept or wetted.

Since Duane Poucher, Plant Manager has only been at this plant for one year, he asked to have Tracy Meyerhoff, Maintenance Manager included in this pre-inspection meeting. Mr. Meyerhoff has had experience in AQD’s 2019 full plant inspection and has several years of

experience at this plant. We discussed the purpose of the inspection and Mr. Poucher stated that like last year, he has copies of all the records that I requested.

Like last year, I had requested to have copies (that I can take with me) of all recordkeeping and 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 and 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.

This year, the plant is operating, and the weather permitted a full plant inspection. As Mr. Poucher, Mr. Meyerhoff and myself approached baghouse1 which controls emissions from the wet drum and aggregate weigh hopper. This baghouse is located one floor above the drum. I observed the magnehelic gauge reading 3.5" wg, the gauge measures the baghouse pressure drop which is normally between 3" – 6" wg. If pressure exceeds 6" wg, an alarm sounds off and the baghouse is inspected. I asked where the gauge readings are recorded and about the alarm. Their answer was that the reading is not recorded, and they did not know about an alarm. I stated that we'll discuss this later at the post-inspection meeting and we continued the inspection. There were no other issues observed inside the plant.

Mr. Meyerhoff continued his regular duties while Mr. Poucher and I walked around the outside of the plant. No visible emissions were observed from the baghouse exhausts. Mr. Poucher brought my attention to the new sweeper SRM purchased in the spring. They no longer contract street sweeping to a third party.

We got into a pickup truck and drove around the entire site and the auxiliary yard (1515 Springwells Court). While driving around, the paved and unpaved roadways were well kept and not dusty, several piles of aggregates were observed without visible emissions. At one area there was a sand pile was being worked by a front-end loader, I observed the working face of the pile being wetted by a sprinkler system.

In the auxiliary yard there was a small pile of concrete where the transit mixers empty any concrete left in the mixer at the end of the workday. When that pile is large enough, SRM contracts a portable crusher to manage the pile. This is also where the diesel fuel tank is located and a nitrogen injection system. In hot weather nitrogen may need to be injected into the mixers concrete slurry in-order to cool the load. Some transit mixers and other plant equipment in need of repair are stored in this area for spare parts and transit mixers are parked here when not in use. The yard is all unpaved and no fugitive dust emissions were observed.

During the post-inspection meeting with Mr. Poucher, I expressed concern about baghouse1. Although the permit does not call for recording the pressure drop, it is just good practice to record the readings of the magnehelic gauge. As the reading trends up action can be taken before an alarm sounds. That brings up the alarm which is required by the permit. Mr. Poucher agreed and stated he would he modify the inspection sheet to include

the pressure drop reading and look further into the alarm situation and either repair, replace or install an alarm as soon as possible.

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; in the last 12 months paved areas have been wet swept 22 times.

Regarding the Plant/Equipment, inspections are made weekly and compiled into a monthly report. New bags for the baghouses were ordered on February 14, 2022. The bags were changed in all three (3) baghouses the first week of March 2022. Concrete production for 2021 was 86,329 cubic yards and for 2022 is 55,844 through August 2022 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, on September 16, 2022, Mr. Poucher emailed a modified baghouse inspection sheet to include the pressure drop reading. He also stated that an electrician is set to come out next week and install the alarm required on baghouse1 (email attached). On October 19, 2022, I received an email from Mr. Poucher stating the alarm is installed on baghouse1 and an invoice is attached as evidence (email attached). Since SRM resolved the alarm issue in a timely manner, a violation notice will not be issued.

#### **COMPLIANCE DETERMINATION:**

Based upon the records reviewed and the 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



DATE

11/2/2022

SUPERVISOR

JK