P1030
MAWILL

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

P103049059

FACILITY: MCCOIG MATERIALS, LLC		**SRN / ID:** P1030
LOCATION: 1441 Springwells Court, DETROIT		**DISTRICT:** Detroit
CITY: DETROIT		**COUNTY:** WAYNE
CONTACT: Dan Hughes , Plant Manager		**ACTIVITY DATE:** 06/03/2019
STAFF: Jonathan Lamb	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** Minor
SUBJECT: Scheduled inspection, FY 2019		
RESOLVED COMPLAINTS:		

INSPECTED BY: Jonathan Lamb, EGLE-AQD
PERSONNEL PRESENT: Dan Hughes, Plant Manager; Tracy Meyerhoff, Maintenance
CONTACT PHONE NUMBER: (734) 231-7849
CONTACT EMAIL: dhughes@mccoig.biz
FACILITY WEBSITE: www.mccoigmaterials.com
SAFETY REQUIREMENTS: Hard hat, steel-toed boots, safety glasses, safety vest

FACILITY BACKGROUND:
McCoig Materials, LLC – Springwells Plant ("McCoig") produces wet batch ready-mix concrete for use in road construction. The company has six facilities in the Detroit Metro area. Primary customers are contractors for MDOT.

The Springwells Plant is currently a seasonal operation, usually starting up in late March and running through late December, depending on the construction season. Hours of operation are 6:00 AM – 6:00 PM, seven days per week. There are approximately 28 employees at the Springwells facility, including drivers.

Note: This site was originally assigned SRN N8060 during permitting for PTI No. 242-10 in 2011. However, during a modification of that permit in 2019, it was determined that N8060 was the SRN for a McCoig-owned portable crusher with the address of 40500 Ann Arbor Rd, Plymouth. So, this facility was assigned a new SRN of P1030 to cover two addresses, 1441 and 1515 Springwells Court, as one stationary source.

COMPLAINT/COMPLIANCE HISTORY:

There is no record of an inspection at this facility. There have been no complaints lodged against the facility.

PROCESS DESCRIPTION/EQUIPMENT:

McCoig produces wet batch, ready-mix concrete, with each batch formulated to customer specifications. The process uses various cements (Portland cement, slag, and flyash), aggregates (sand, limestone, gravel), admixtures (chlorides and non-chlorides) and water mixed in a rotary drum to produce each batch.

The cements 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 daily.

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 of aggregate. 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 until use. 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, which heats the water 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 of 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 cement trucks staged in loading lanes 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. McCoig uses its own trucks/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 goes off and the baghouse is set to a more frequent cleaning cycle.

- Baghouse2 controls emissions from the four 60-ton cement silos. This baghouse is located three floors above the drum. There is no pressure drop gauge installed.

- Baghouse3 controls emissions from the two 90-ton cement silos. This baghouse is located three floors above the drum. There is no pressure drop gauge installed.

A full inspection and bag replacement of each baghouse is performed during the off-season. Bags are replaced during the off-season; all the bags in each baghouse were replaced in January 2019. 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 and extra bags are stored on site if needed for quick replacement. Each baghouse exhausts through a horizontal stack vented to the side of the building. Dusts collected in the baghouses are reused in the process as raw material.

McCoig also owns property just north of the plant located at 1515 Springwells Court, which is used to store scrap concrete leftover from processing as well as additional aggregate storage. A portable crusher (McCoig Recycle) is contracted once or twice a year to crush the concrete, which is then sold off as backfill to other customers. McCoig Recycle was most recently on site from July 6 through 17, 2018.

There is a 20,000-gallon diesel tank located at 1515 Springwells Court, which is used to fuel vehicles on site. 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).

Note: The 1441 and 1515 Springwell Court properties are considered one stationary source but are not contiguous – there is a thin strip of property between the two sites which, based on the signs in front, is 1475 Springwells Court and used by "Detroit-Windsor Truck Ferry" and "Department of Homeland Security".

APPLICABLE RULES/ PERMIT CONDITIONS:

McCoig Materials, LLC. was issued PTI No. 242-10 on August 17, 2011, under the SRN N8060. This was the active permit on the date of the inspection, so the compliance evaluation was based on this permit.

PTI No. 242-10A was issued on June 12, 2019, which modified the original permit to include the 1515 Springwells Court address and ensure the fugitive dust plan included within the Permit to Install is applied to both properties. In addition, it was determined that the original SRN of N8060 had been assigned to this facility in error and a new SRN of P1030 was assigned for the facility.

PTI No. 242-10, Special Conditions:

EUPROCESS

I. EMISSION LIMITS
1. IN COMPLIANCE. During the inspection, visible emissions from Baghouse1 did not exceed a six-minute average opacity of 5% while material was processed.
2. IN COMPLIANCE. During the inspection, visible emissions from Baghouse2 did not exceed a six-minute average opacity of 5% while material was processed.
3. IN COMPLIANCE. During the inspection, visible emissions from Baghouse3 did not exceed a six-minute average opacity of 5% while material was processed.
4. NOT IN COMPLIANCE. Method 9 opacity readings were not performed during the inspection, but fugitive emissions at the top of the aggregate conveyor as it entered the building clearly exceeded 10% opacity during loading of the material. Mr. Hughes and Mr. Meyerhoff explained that this was due to a "blown seal for the blow off tops". The facility was aware of the issue and had replacement seals on order and were waiting for delivery.

II. MATERIAL LIMITS
1. IN COMPLIANCE. According to Mr. Hughes, the facility does not process any asbestos tailings or asbestos-containing waste materials in EUPROCESS.
2. IN COMPLIANCE. The facility did not exceed the permit limit of 430,400 cubic yards of material through EUPROCESS per 12-month rolling time period. The highest 12-month total during the compliance period was 142, 394 cubic yards in the 12-month rolling timer period ending December 2018.

III. PROCESS/OPERATIONAL RESTRICTIONS
1. IN COMPLIANCE. The facility implements and maintains a fugitive dust plan, as described in Appendix A, for the plant yard, all material storage piles, and all material handling operations. Records of sweeping and spraying are maintained in a logbook and were reviewed during the inspection.

IV. DESIGN/EQUIPMENT PARAMETERS
1. IN COMPLIANCE. During the inspection, Baghouse1 appeared to be installed, maintained, and operated as required.
2. IN COMPLIANCE. During the inspection, Baghouse2 appeared to be installed, maintained, and operated as required.
3. IN COMPLIANCE. During the inspection, Baghouse3 appeared to be installed, maintained, and operated as required.
4. NOT IN COMPLIANCE. Baghouse1 is equipped with a gauge to measure pressure drop, which is

set to an alarm if the pressure drop exceeds 6" wg. During the inspection, the pressure drop was 2.5" wg. Baghouse2 and Baghouse3 are not equipped with a gauge to monitor pressure drop. This was indicated in the control device description included in the original permit application. PTI No. 242-10A removed the requirement for a pressure drop gauge for Baghouse2 and Baghouse3.

VI. MONITORING/RECORDKEEPING
1 and 2. IN COMPLIANCE. The amount of material processed is recorded on a daily, monthly, and calendar year basis. This was sufficient to determine 12-month rolling totals, though I explained to Mr. Hughes that the facility should also maintain a written record of the 12-month rolling totals to assure compliance with the permit material limit.

VIII. STACK/VENT RESTRICTIONS
1, 2, and 3: NOT IN COMPLIANCE. Stack dimensions appear to meet permit specifications; however, the stacks exhaust horizontally out the side of the building, not unobstructed vertically.

EUTRUCKTRAFFIC

I. EMISSION LIMITS
1. IN COMPLIANCE. Visible emissions from truck traffic did not appear to exceed 5% opacity during the inspection.

III. PROCESS/OPERATIONAL RESTRICTIONS
1. IN COMPLIANCE. The Fugitive Dust Plan, as outlined in Appendix A, is implemented and maintained. Records of sweeping and spraying of the roads and lots are maintained and were reviewed during the inspection.
2. NOT IN COMPLIANCE. There are no rumble strips at the entrances to the facility. The requirement for rumble strips was removed upon issuance of PTI No. 242-10A.

EUSTORAGE

I. EMISSION LIMITS
1. IN COMPLIANCE. Visible emissions from the material storage piles did not appear to exceed 5% opacity during the inspection. Water sprinklers are used to wet the aggregate to reduce fugitive dust emissions during loading into the hoppers.

III. PROCESS/OPERATIONAL RESTRICTIONS
1. IN COMPLIANCE. A Fugitive Dust Control Plan, as outlined in Appendix A, is implemented and maintained. Drop heights during loading/unloading are minimized and water sprinklers are used on the aggregate during loading of hoppers to reduce fugitive emissions. Calcium chloride is sprayed on unpaved areas during extended dry periods or as needed.

APPENDIX A – Fugitive Dust Control Plan: The facility implements and maintains a fugitive dust control plan as outlined in Appendix A.

Note: A requirement to implement and maintain a Preventative Maintenance Plan for the baghouses and associated equipment was included in PTI No. 242-10A.

FINAL COMPLIANCE DETERMINATION:

At the time of inspection, McCoig Materials, LLC. was determined to be in noncompliance with the following conditions of PTI No. 242-10:

EUPROCESS, S.C. VIII.1, VIII.2, and VIII.3: Baghouse ducts exhaust horizontally out the side of the building, not unobstructed vertically. A Violation Notice will be issued.

EUPROCESS, S.C. I.4: At the time of inspection, the facility was aware of the issue and had started taking corrective actions. The seals were replaced on June 26, 2019, and a revisit to the facility on July 10 verified no visible emissions from conveyor as the material was being processed. Since the violation was resolved through timely corrective actions, this violation will not be included in the Violation Notice.

EUPROCESS, S.C. IV.4: Baghouse2 and Baghouse3 are not equipped with a pressure drop gauge. This requirement was removed in PTI No. 242-10A. Since this violation was resolved through the issuance of PTI No. 242-10A, this violation will not be included in the Violation Notice.

EUTRUCKTRAFFIC, S.C. III.2: This condition required the use of rumble strips at the truck exits. The facility never installed rumble strips but performs sweeping on a regular basis to control track out. This condition was removed upon issuance of PTI No. 242-10A. Since this violation was resolved through the issuance of PTI No. 242-10A, this violation will not be included in the Violation Notice.

NAME _____ DATE 8-8-19 SUPERVISOR JK