

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

A335254693

FACILITY: Cadillac Asphalt, LLC		SRN / ID: A3352
LOCATION: 67 MARY, MOUNT CLEMENS		DISTRICT: Warren
CITY: MOUNT CLEMENS		COUNTY: MACOMB
CONTACT: Susanne Hanf , Environmental Engineer		ACTIVITY DATE: 07/09/2020
STAFF: Kaitlyn Leffert	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY2020 Scheduled Inspection		
RESOLVED COMPLAINTS:		

On July 9, 2020, I, Kaitlyn Leffert, Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff, conducted a scheduled inspection of Cadillac Asphalt, located at 67 Mary Street, Mt. Clemens. The facility is identified by the Source Registration Number (SRN) of A3352. The purpose of this inspection was 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, as amended (Act 451); AQD administrative rules; 40 CFR, Part 60, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities; and Permits to Install (PTI) Number 766-87C.

Cadillac Asphalt is a hot-mix asphalt facility that produces asphalt products used for roadway construction and commercial buildings. The operating schedule is driven by demand for asphalt products. The facility typically operates 6 days per week, 12-13 hours/day, April through December. The actual asphalt production process does not typically run the entire time the facility is open. Cadillac Asphalt is permitted to operate a 300 tons per hour dual drum batch mixer, aggregate conveyors, and a fabric filter dust collector. The facility is also permitted to operate fugitive dust sources, including the plant yard and roadways.

Record Review

Due to ongoing concerns related to COVID-19, I collected the required records prior to my on-site inspection. On May 28, 2020, I emailed Sue Hanf, Environmental Engineer, Cadillac Asphalt, to request the required records. Ms. Hanf responded on June 8, 2020 with the requested records. Monthly records were provided for 2019 and 2020, while daily records were provided for the 2020 season so far.

The facility is required to monitor and maintain records of the virgin aggregate feed rate and the reclaimed asphalt product (RAP) feed rate on a continuous basis, as well as records of the asphalt mixture temperature and information sufficient to identify the components of the asphalt mixture. (SC 1.15, 1.24). The facility provided records of daily print sheets and daily production logs, which included records of the feed rate, mix changes, temperature of the HMA, thereby satisfying this recordkeeping requirement.

Fuel Usage

The permit contains various requirements that are specific to the burning of fuel oils, recycled used oil (RUO), and/or hazardous waste (SC 1.3, SC 1.8, SC 1.23(a) and (b), and Appendix C). Records of fuel usage provided by the facility indicate that natural gas is the only fuel used at the plant and no fuel oils or hazardous waste materials are used. Therefore, compliance the fuel oil specific requirements is not being assessed at this time.

Material Usage Limits

Cadillac Asphalt provided records of the tons of HMA containing RAP produced, as well as the average percent RAP on a monthly and daily basis (SC 1.23c). The plant is limited to a maximum RAP content of 50% based on a monthly average (SC 1.5). The provided records indicate that daily values ranged from 15% to 41% RAP. The average monthly RAP content in May 2020 was 36%. The month with the highest percent RAP over the previous two years was May 2019, at 46% RAP. The RAP records appear to indicate compliance with permitted maximum RAP content of 50%.

The facility also provided records of the amount of HMA produced on an hourly, monthly, and 12-month rolling basis, as required per SC 1.27. Hourly production of HMA ranged from 140 to 175 tons per hour during the 2020 season so far, which is in compliance with the permit limit of a maximum of 250 tons per hour (SC 1.7).

In addition to the hourly production limit, the facility is permitted to produce a maximum of 894,000 tons of HMA per 12-month rolling time period (SC 1.6). The monthly production summary indicates that the 12-month rolling total production at the end of May 2020 was 126,285 tons. The highest annual production over the previous two seasons was observed at the end of March 2019, at 153,769 tons, which is well below the permitted limit.

Emission Limits

The permit contains emission limits for particulate matter (PM), CO, sulfur dioxide (SO₂), nitrogen oxides (NO_x), lead, benzene, toluene, ethylbenzene, xylene, naphthalene, formaldehyde, acrolein, arsenic, nickel, sulfuric acid, manganese, and hydrogen chloride. Compliance with these emission limits is to be determined based on stack testing, as well as emissions calculations and recordkeeping. Stack testing to determine emissions rates of CO, PM, sulfur dioxide, and the HAPs was done in October 2003, August 2005, and August 2006. The reason for multiple tests was due to the addition of PM emission limits to the permit, as well as a failed test for arsenic. The August 2006 stack test demonstrated compliance with the arsenic limits. The 2005 stack test for particulate matter satisfied the requirement to verify PM emission rates in 40 CFR, Part 60, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities.

Ms. Hanf provided records of monthly and 12-month rolling emission calculations for all criteria pollutants and HAPs, as is required by SC 1.25. The permit sets annual limits for CO and SO₂, which are both 89.4 tpy, as determined on a 12-month rolling basis. The provided records indicate that the 12-month rolling emissions for CO and SO₂ at the end of May 2020 were 8.22 tpy and 0.22 tpy, respectively. These values are well under the permitted limits and appear to demonstrate compliance.

The permit also sets facility-wide limits of 8.9 tpy for any individual HAP and 22.4 tpy for aggregate HAPs, as determined on a 12-month rolling basis. The provided emissions calculations indicate that the 12-month rolling emissions of all individual HAPs were under 0.20 tpy, as of May 2020. The individual HAP with the highest 12-month rolling emissions was formaldehyde at 0.196 tpy. Aggregate HAP emissions were 0.27 tpy as of May 2020. The 12-month rolling emissions calculations in May were consistent with values calculated in previous months. The facility appears to be in compliance with the permitted HAP emission limits.

CO Emission Monitoring

The permit requires the facility to conduct handheld CO monitoring upon the startup of each paving season, upon malfunction of the drum dryer, and/or after every 500 hours of operation (SC 1.16). Cadillac Asphalt provided records of handheld CO monitoring done over the previous three years. The most recent monitoring was done on May 5, 2020. A total of eight measurements were collected over a period of thirty minutes. The recorded CO concentrations ranged from 123 ppm to 140 ppm, which is well in compliance with the recommended action level for CO monitoring of 500 ppm.

Facility Inspection

Following review of the records, I visited the facility to conduct an on-site inspection. I arrived at the facility around 10:00 am on July 9th, 2020 and was greeted by Sue Hanf, Environmental Engineer, Cadillac Asphalt and Dave Gaedcke, Plant Manager. We first discussed some general questions and then did a walk-through of the plant. Due to ongoing concerns related to COVID-19, additional safety precautions were taken while on-site. All involved in the inspection practiced safe social distancing and wore masks throughout the duration of the inspection.

The plant was not operating, but truck loading activities were taking place during my inspection. The plant consists of one double drum plant, two AC tanks, two storage silos, six could feed bins, a boiler room. The facility also has a baghouse to control emissions from the HMA plant.

I inquired about whether the RAP contained asbestos tailings or asbestos containing waste, as is prohibited per SC 1.4. I was informed that no asbestos containing materials were used in the process.

Fabric Filter Dust Collector

Appendix B of the permit sets requirements for the maintenance of the fabric filter dust collector used for particulate matter control. During the inspection, I observed the area around the baghouse and did not notice any sign of leaks and the area around the baghouse appeared to be well maintained. The dust collected from the baghouse is re-used in asphalt production.

Appendix B also requires the facility to continuously monitor the pressure drop across the baghouse and record

it at least once per day. I was provided daily records of the baghouse pressure drop during records review. During the 2020 season so far, the pressure drop ranged from 3.2 to 3.7 inches of water, which satisfies the permit requirement that the pressure drop be maintained between 2 and 6 inches of water (Appendix B, 1a; SC 1.12).

In addition, the facility must conduct annual black light inspections, keep an inventory of fabric filter bags, and maintain a record of fabric filter inspections and maintenance activities. According to the plant and baghouse maintenance record, the plant conducted the annual black inspection on April 23, 2020. Plant staff also conduct a daily walk around inspection, which checks all plant equipment and the baghouse for any leaks or associated maintenance concerns.

Fugitive Dust

Appendix A of the permit contains a fugitive dust plan, which must be implemented and followed by the facility (SC 1.9). I asked about site maintenance and Mr. Gaedcke explained that the site and roadways are swept once per week and chloride is applied on an as needed basis. I also observed there was a speed limit sign posted of 10mph. Drop distances also appeared to be kept at an appropriate height. I did not observe any fugitive dust generation while I was on-site.

Conclusion

Based on my on-site inspection and review of the required records, Cadillac Asphalt (SRN: A3352) appears to be operating in compliance of PTI No. 766-87C, as well as all applicable air quality rules and regulations.

NAME *Kaitlyn Tuffut* DATE 09/28/2020 SUPERVISOR *Sebastianykallemkal*