

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

N829544977

FACILITY: SUPERIOR ASPHALT INC		SRN / ID: N8295
LOCATION: 6900 EAST PARIS INDUSTRIAL, CALEDONIA		DISTRICT: Grand Rapids
CITY: CALEDONIA		COUNTY: KENT
CONTACT: Tony Stepek , Plant Manager		ACTIVITY DATE: 06/14/2018
STAFF: Tyler Salamasick	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2018 Opt out inspection.		
RESOLVED COMPLAINTS:		

Abstract

Superior Asphalt Inc. (Superior) is a manufacturer of hot mix asphalt (HMA). The facility batches various mixes of asphalt and loads trucks. The process involves aggregate handling, heating of aggregate and blending of liquid asphalt. Superiors plant has a counterflow drum.

Superior Asphalt Inc. is considered to be one stationary source. Superior Asphalt Inc. is not subject to the Title V program, which is discussed below, in the regulatory analysis section of this report.

Introduction and purpose

On June 14, 2018 Tyler Salamasick, Environmental Quality of the Michigan Department of Environmental Quality, Air Quality Division conducted an unannounced, scheduled inspection of Superior Asphalt Inc. The MDEQ inspected the facility located at 6900 East Paris, Caledonia, Michigan. The purpose of the inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and PTI No.154-09.

Observations and facility processes

AQD staff met with Tony Stepek, Operator, presented their identification and informed the representative of the intent of the inspection. The facility representative agreed to show the MDEQ the facility and its processes. The facility's process is described in some detail below.

The facility stock yard was relatively well maintained. Prior to entering the site, AQD staff made odor observations and did not detect strong odors off of the property. Once on site, AQD staff observed operators moving aggregate with a front end loader toward the back of the property. There was not a significant amount of dust generated from the traffic at that time. The aggregate is loaded into hoppers where it is fed via a conveyor system into the drum. Superior uses a counterflow drum to heat the aggregate prior to blending with the liquid asphalt. The facility also uses recycled asphalt product (RAP) to blend with the mix. Once blended the mix is loaded into silos and then dispensed to asphalt trucks below. The facility does not have a enclosed load out for the trucks.

Regulatory analysis and compliance evaluation

Facility emission category

Superior Asphalt Inc. is an opt out source for hazardous air pollutants (HAPs) and has emission limits for carbon monoxide (CO) and particulate matter (PM). PTI No. 154-09 establishes a plant wide (FG-Facility) aggregate HAP limit of 22.5 tons per year (tpy) and a single HAP limit of 9 tpy. The facility is subject to 40 CFR Part 60 Subpart I New Source Performance Standards for Hot Mix Asphalt Facilities. Subpart I requirements for particulate matter were incorporated into the permit to install.

Source Wide Conditions

The source wide conditions apply to all process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

Per the attached records, as of May 2016, aggregate HAP emissions were 0.79 tpy, with formaldehyde being the highest individual HAP emitted at 0.58 tpy. These emissions are below the respective aggregate HAP emissions rate of 22.5 tpy and individual HAP emissions rate of 9.0 tpy both 12-month rolling.

PTI-154-09

Emission limits – Superior Asphalt Inc. is limited to the multiple different pollutant emissions as describe in their permit. Superior demonstrates compliance with the emission rates based on testing, emissions calculations and material through put limits. The facility conducted emissions testing in 2010 in order to demonstrate compliance with the toxic air contaminants TACs emission rate as well as PM, CO, SO₂, and NO_x emission rates (see testing report for full detail.) The facility's only ton per 12 month rolling time period is for CO. Superior tracks the emissions of CO based on production and the facility's highest emission rate for CO during 2016 and 2017 occurred in May of 2016. The facility emitted 24.6 tpy of CO per 12 month rolling which is below the 89.9 tpy per 12 month rolling CO limit.

Material limits

Superior Asphalt is limited to not burn any fuel other than natural gas, propane, Nos. 1 through 6 fuel oils, or recycled used oil in EUHMAPLANT. At the time of my inspection Tony informed me that they only ever use natural gas and that in order to use fuel oil they would need to bring a tank on site.

Superior has limits on using recycled used oil, though the facility does not burn it. If the facility were to burn recycled used oil it would have to meet the limits as set by the permit.

The facility is required to limit the asphalt mixture processed in EUHMAPLANT to a maximum of 50 percent RAP material based on a monthly average. The month with the highest monthly RAP usage was July of 2016 at 30.4%. This is below the 50% limit.

The permittee is limited to not process more than 895,000 tons of HMA paving materials in EUHMAPLANT per 12 month rolling time period as determined at the end of each calendar month. The facility's records indicated that the highest 12 month rolling production was 379,182 tpy during the month of April 2016. This is below the 895,000 ton limit.

The other production rate limit states that Superior is to not process more than 300 tons of HMA paving materials in EUHMAPLANT per hour based on a daily average. The provided records indicate that the facility's highest hourly production rate was 296.462 tph which occurred on 7/7/2016. This is within 98% of the permit limit, though close it is still below the 300 ton per hour limit.

Process and operational restrictions

The permittee is required to follow a Fugitive Dust Control Plan for EUYARD as specified in Appendix A. At the time of my inspection it appeared that they were following the dust control plan. I did not observe excess fugitive dust. At one point a strong gust blew some dust around, but it was minimal and brief. The areas were well swept, and I observed a 10 mph posted speed limit as required by the appendix.

The permittee is also required to follow a Preventative Maintenance Program as specified in Appendix B. Tony showed me some of the record keeping they maintained and it appears that they comply with

Appendix B.

The permit specifies operational restrictions if the facility were to operate EUHMAPLANT with RUO. As discussed previously, the facility does not use RUO.

Superior is required to maintain the efficiency of the EUHMAPLANT drum mix burners, to control CO emissions, by fine tuning the burners for proper burner operation and performance. This shall be done at the start of each paving season or upon a malfunction of EUHMAPLANT as shown by the CO emission monitoring data (concentration exceeds 500 ppmv), as required in SC VI.3. Tony showed me the records which indicated the CO was around 200 ppm. Tony indicated that they conduct the initial test and then an additional 2 to 3 tests per year.

Design and equipment parameters

Superior is required to have a fabric filter dust collector installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the fabric filter dust collector requires a pressure drop range between 2 and 10 inches of water column. At the time of my inspection the pressure drop was at 5.3". This is within the acceptable range. The facility's records indicated that the bags were replaced in 2016 and Tony indicated that they normally last approximately 5 years.

Testing and sampling

The facility is required to verify and quantify odor emissions from EUHMAPLANT, by testing at owner's expense. The MDEQ has not requested that this testing be done.

Superior was required to verify and quantify emission rates of the TACs listed below from EUHMAPLANT as well as PM, CO, SO₂, NO_x and lead, by testing at owner's expense, in accordance with Department requirements. The facility tested the emissions in 2010 (see previous report).

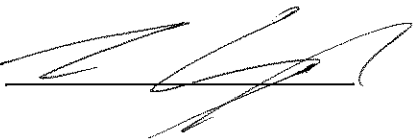
Monitoring and record keeping

The facility is required to monitor and maintain records for various aspects of the permit. The facility uses their records to demonstrate compliance with the conditions of the permit. At the time of the inspection the records appeared adequate.

Discussion

Compliance statement: Based upon my observations and the information available at the time of the inspections, it appears that Superior Asphalt Inc. is in compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and PTI-154-09.

NAME



DATE

8/3/18

SUPERVISOR



