

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

N829536418

FACILITY: SUPERIOR ASPHALT INC		SRN / ID: N8295
LOCATION: 6900 EAST PARIS INDUSTRIAL, CALEDONIA		DISTRICT: Grand Rapids
CITY: CALEDONIA		COUNTY: KENT
CONTACT: Nate Voruganti, Laboratory		ACTIVITY DATE: 09/06/2016
STAFF: Kaitlyn DeVries	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: The purpose of this inspection was to respond to an odor complaint received on September 1, 2016 and to determine compliance with PTI No. 154-09 and all other applicable Air Quality Rules and Regulations.		
RESOLVED COMPLAINTS: C-16-02244		

On Tuesday September 6, 2016 AQD Staff Kaitlyn DeVries (KD) and Adam Shaffer (AS) conducted an unannounced, scheduled inspection of Superior Asphalt Inc., located at 6900 East Paris Industrial, Caledonia, Michigan. The purpose of this inspection was to respond to an odor complaint received on September 1, 2016 and to determine compliance with PTI No. 154-09 and all other applicable Air Quality Rules and Regulations.

AQD Staff arrived in the area at approximately 8:45 am and surveyed the perimeter of the plant for any excess opacity and odors. Conditions were partly cloudy, 76°F with a SSW wind at 10 mph. No excess opacity was noted, but some distinct asphalt odors were detected to the northeast of the facility prior to entrance. The odors were, however, fleeting. KD also noted some steam originating from the load out, but it appeared to dissipate quickly. Staff met with Mr. Nate Voruganti, who escorted staff on the visit. KD presented Mr. Voruganti with the Environmental Rights and Responsibilities pamphlet, which was briefly discussed. Staff also met with Mr. Tony Stepek, who was in the operator's tower.

Facility Description

Superior Asphalt, Inc. (Superior) is a counter-flow drum mix hot mix asphalt plant. The facility generally operates from May to October, but can be variable based on the weather.

Regulatory Analysis

Superior is a Synthetic Minor Source, and currently holds one (1) Opt-Out permit, PTI No. 154-09. Superior is also subject to the New Source Performance Standards for Hot Mix Asphalt Facilities (40 CFR Part 60 Subpart I). Many of the requirements of Subpart I are written into the permit, and will be evaluated as such.

Compliance Evaluation

EUHMAPLANT

This emission unit includes the hot mix asphalt (HMA) facility including the aggregate conveyors, the 300 ton per hour counter-flow drum, and the fabric filter dust collector. Per Mr. Stepek, the facility only uses natural gas as its fuel source. Records also indicate natural gas as the only fuel source. Since no recycled used oil (RUO) or fuel oil was used, compliance with Appendix D (Compliance Monitoring Plan for facilities burning recycled used oil) of PTI No. 154-09 was not evaluated. Superior also does not process any asbestos, asbestos containing materials, shingles, or any other hazardous waste.

At the time of the inspection, Superior was running at a rate of approximately 235 tons per hour (tph), which is below their limit of 300 tph. Superior has gotten close to their 300 tph limit, on days such as July 7, 2016 and July 8, 2016 where production was at 296.465 tph and 294.358 tph, respectively. Per Mr. Stepek, average production is about 2,000 tons per day, but can get up as high as 4,000 tons per day. Based on the records, as of the end of August 2016 the 12-month rolling average of HMA processed is 360,168 tons. This is below their limit of 895,000 tons of HMA per 12-month rolling time period. The mix that was running at the time of the inspection was approximately 25% RAP. Superior has an allowable monthly average RAP content of 50%. Based on the records, it appears as if the monthly RAP content is between 25% and 30 %. Superior appears to be properly tracking the daily RAP feed rate, virgin feed rate, and product temperature. All records are attached to this report.

Superior conducted the required Carbon Monoxide (CO) monitoring at the start of paving season and then again in June 2016 after 500 hours of operation. The highest CO reading between the two (2) monitoring times was

280 ppm, which is below the maximum allowed of 500 ppm. Mr. Stepek indicated that the drum mix burners were fine-tuned at both of these points during the season. The records show eight (8) readings, but do not indicate time to ensure that the readings were taken over a time period of at least 30 minutes. KD suggests Superior include the time of each reading in the records, moving forward. CO monitoring records are attached to this report.

Superior has most recently conducted stack testing in 2010 to verify the emission rates of the Toxic Air Contaminants (TAC's) listed in the table below.

Pollutant	Limit	Time Period
PM	0.04 gr/dscf	Test Protocol ¹
PM	0.027 lb./ton	Test Protocol ¹
CO	0.201 lb./ton	Test Protocol ¹
CO	89.9 tpy ²	12-month rolling average ³
SO ₂	0.169 lb./ton	Test Protocol ¹
NO _x	0.18 lb./ton	Test Protocol ¹
Lead	1.5x10 ⁻⁵ lb./ton	Test Protocol ¹
Benzene	0.001 lb./ton	Test Protocol ¹
Toluene	0.006 lb./ton	Test Protocol ¹
Ethylbenzene	0.005 lb./ton	Test Protocol ¹
Xylene	0.001 lb./ton	Test Protocol ¹
Naphthalene	0.001 lb./ton	Test Protocol ¹
Formaldehyde	0.01 lb./ton	Test Protocol ¹
Acrolein	0.001 lb./ton	Test Protocol ¹
Arsenic	1.5x10 ⁻⁶ lb./ton	Test Protocol ¹
Nickel	2.5x10 ⁻⁴ lb./ton	Test Protocol ¹
H ₂ SO ₄	0.016 lb./ton	Test Protocol ¹
Manganese	5.0x 10 ⁻⁵ lb./ton	Test Protocol ¹
Hydrogen Chloride	0.024 lb./ton	Test Protocol ¹

¹ All test protocol emissions are calculated using an annual limit of 895,000 tons HMA paving material production.

² TPY – Tons per year.

³ As of August 2016 the 12-month rolling CO emissions were 23.4 tpy; all emission tracking for the monthly and 12-month rolling TAC emissions are appropriate.

Emission records are attached to this report and appear to be consistent with what was reported in the 2015 MAERS report.

The condition for Dynamic Dilution Method testing, for odors, has not yet been implemented; however, it may be required at any time per AQD's discretion. Superior also continues to utilize EcoSorb, an odor masking agent to minimize odors.

The dust collector appeared to be properly installed, maintained, and operated. Per Mr. Voruganti, Superior replaced all of the bags in the dust collector in March, prior to the 2016 operating season. After installation of the new bags, Superior then did a black light test to ensure that there were no leaks in the bags. Extra bags are also available on site, when needed. Superior is monitoring the pressure drop across the baghouse, as required. The pressure drop at the time of the inspection was 4.8" water column. Based on the records, the baghouse appears to have been operating between 2.8 and 3.5" water column for the majority of the operating season. This is between the required 2 and 10 inches of water column. Superior is properly tracking all of the maintenance that is done on the baghouse and in accordance with the preventative maintenance program for the fabric filter dust collector found in Appendix B of PTI No. 154-09. All hot start-ups and shut-downs are being tracked in accordance with Appendix C to minimize emissions. Additionally, while the stack dimensions were not explicitly measured, there appeared to be no changes.

Finally, it appears as if all provisions of the Federal Standards for New Stationary Sources as specified in 40 CFR Part 60 Subpart I for EUHMAPLANT are being met.

EUYARD and Appendix A – Fugitive Dust Plan

This emission unit includes the fugitive dust sources, such as the plant roadways, the plant yard, the material storage piles, and the material handling operations, excluding the cold feed aggregate bins. The fugitive dust plan (Appendix A) is utilized to control dust. The day of the inspection was hot, and dry. KD noted some dust emanating from the front-end loader that was moving some materials from the piles in the yard. KD asked Mr. Voruganti about how fugitives are minimized, and Mr. Voruganti explained that Superior sweeps the yard a couple of times throughout the week, and does not regularly use water for dust control. KD went on to ask if there would be any conditions that would prompt the plant to use water; Mr. Voruganti stated that nothing really does prompt them to use water. Superior is tracking the frequency of the yard being swept. Trucks observed at the time of the inspection appeared to be covered and following the speed requirements.

PM emissions appear to be tracked, and based on the 2015 MAERS report they are using an appropriate emission factor.

EUACTANKS

This emission unit includes all of the liquid asphalt cement storage tanks, with associated vapor condensation recovery units. The vapor condensation recovery system appeared to be properly installed and operating at the time of the inspection; per Mr. Voruganti, no major maintenance has been done on this emission unit since the last inspection.

EUSILOS

The four (4) silos for hot mix asphalt paving material product storage appeared to have an emission capture system installed and properly operating.

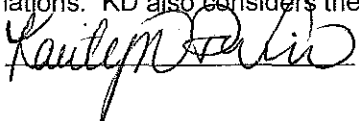
FG-FACILITY

The plant has facility wide individual and aggregate Hazardous Air Pollutant (HAP) emission limits of 9.0 tpy and 22.5 tpy, respectively. As of August 2016 the 12-month rolling aggregate HAP emissions were 0.752 tons; the highest individual HAP, Formaldehyde, had a 12-month rolling individual emission of 0.558 tons. The records for HAP's appear to be properly maintained and recorded.

Compliance Determination

Based on the observations made during the inspection and a subsequent review of the records, it appears as if Superior Asphalt, Inc. is in Compliance with PTI No. 154-09 and all other applicable Air Quality Rules and Regulations. KD also considers the odor complaint received on September 1, 2016 to be resolved.

NAME



DATE

9/12/2016

SUPERVISOR

