

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

N829527184

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: 07/15/2014
STAFF: Denise Plafcan	COMPLIANCE STATUS: Compliance
SUBJECT:	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

Denise Plafcan (DP) conducted an unannounced scheduled inspection to determine compliance with state and federal Air Quality rules and regulations and Opt-out PTI No. 154-09. DP drove around the area prior to entering the facility. There were no odors, fugitive emissions or opacity noted from the facility. DP stopped at the front office to notify the company of the inspection and then walked to the control room. In the control room, DP met with, Tony Stepek, Plant Manager, and after a brief introduction and discussion, DP explained the purpose of the inspection and reviewed the Environmental Inspection brochure. While in the control room, DP reviewed the electronic operating system, conducted an audit of the electronic data and reviewed the intermittent records that are hand written in a journal. Since Nate was not in the office that morning, Tony agreed to have Nate Voruganti submit the data electronically see attached electronic records. Tony was then the escort on the physical inspection of the plant.

They use a dry sweeper to try and control the dust but also have watering available, if necessary. The watering is only done if there hasn't been any rain and the log states whether or not the roadways were watered. The plant appeared very clean and very orderly with spare parts being stored on site as required in the CAM Plan.

DP requested a copy of the EPA 114 letter response which was submitted electronically on July 16, 2014 on a USB drive. Confidential formula information was removed from the drive and a paper copy was placed in the AQD Confidential File.

DP  
9-30-1

**EMISSION UNIT SUMMARY TABLE INCLUDED IN FGFACILITY FLEXGROUP.**

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)
EUHMAPLANT	Hot mix asphalt (HMA) facility including: Aggregate conveyors, 300 ton per hour counter-flow drum, Fabric filter dust collector
EUYARD	Fugitive dust sources including: Plant roadways, Plant yard, Material storage piles, Material handling operations (excluding cold feed aggregate bins)
EUACTANKS	Liquid asphalt cement storage tanks
EUSILOS	Hot Mix Asphalt (HMA) paving material product storage silos

The following conditions apply to: EUHMAPLANT

**DESCRIPTION:** Hot mix asphalt (HMA) facility including: Aggregate conveyors, 300 ton per hour counter-flow drum

**Flexible Group ID:** FGFACILITY

**POLLUTION CONTROL EQUIPMENT:** Fabric filter dust collector

**I. EMISSION LIMITS**

Pollutant	Limit*	COMPLIANCE
1. PM	0.04 gr/dscf	EUHMAPLANT Testing was conducted on 10/11/2010 and passed all limits. Additional testing was not requested as part of this compliance inspection.
2. PM	0.027 lb/ton**	
3. CO	0.201 lb/ton**	

4. CO	89.9 tpy 12-month rolling time period as determined at the end of each calendar month	Less than 21.5 tons as of August 2014.
5. SO <sub>2</sub>	0.169 lb/ton**	EUHMAPLANT Testing was conducted on 10/11/2010 and passed all limits. Additional testing was not requested as part of this compliance inspection.
6. NO <sub>x</sub>	0.18 lb/ton**	
7. Lead	1.5×10 <sup>-5</sup> lb/ton**	
8. Benzene	0.001 lb/ton**	
9. Toluene	0.006 lb/ton**	
10. Ethylbenzene	0.005 lb/ton**	
11. Xylene	0.001 lb/ton**	
12. Naphthalene	0.001 lb/ton**	
13. Formaldehyde	0.01 lb/ton**	
14. Acrolein	0.001 lb/ton**	
15. Arsenic	1.5×10 <sup>-6</sup> lb/ton**	
16. Nickel	2.5×10 <sup>-4</sup> lb/ton**	
17. H <sub>2</sub> SO <sub>4</sub>	0.016 lb/ton**	
18. Manganese	5.0×10 <sup>-5</sup> lb/ton**	
19. Hydrogen Chloride	0.024 lb/ton**	

## **II. MATERIAL LIMITS**

1. The permittee shall not burn any fuel other than natural gas, propane, Nos. 1 through 6 fuel oils, or recycled used oil in EUHMAPLANT they only use natural gas and are not using any fuel oils.
2. The permittee shall not burn in EUHMAPLANT any hazardous waste (as defined in state or federal law), blended fuel oil or specification recycled used oil (RUO) containing any contaminant that exceeds the following concentrations or for which the flash point, or ash content vary from the standards specified in the following table. They are not using any RUO
3. The permittee shall not use any asbestos tailings or waste materials containing asbestos in EUHMAPLANT pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. Testing was not conducted to verify this condition but the company was confident that they have not received any asbestos containing materials.
4. The permittee shall limit the asphalt mixture processed in EUHMAPLANT to a maximum of 50 percent RAP material based on a monthly average. They are operating at less than 30% RAP.
5. The permittee shall 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. 330396 tons as of August 2014 well below the 895000 tons. DP will remind the company that they must maintain a 12-month rolling total and not just a calendar year. No VN will be issued since they are well below the limit and records were being maintained just not added together.
6. The permittee shall not process more than 300 tons of HMA paving materials in EUHMAPLANT per hour based on a daily average, which shall be determined by dividing the daily HMA production by the daily operating. Highest production was 276 tons per hour on August 4, 2014.

## **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUHMAPLANT unless the Fugitive Dust Control Plan for EUYARD specified in Appendix A has been implemented and is maintained. Compliant
2. The permittee shall not operate EUHMAPLANT unless the Preventative Maintenance Program specified in Appendix B has been implemented and is maintained. Compliant
3. The permittee shall not operate EUHMAPLANT unless the Emission Abatement Plan for Startup, Shutdown and Malfunctions specified in Appendix C has been implemented and is maintained. Compliant
4. The permittee shall not operate EUHMAPLANT with RUO unless the Compliance Monitoring Plan (CMP) for RUO specified in Appendix D, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. Compliant
5. The permittee shall 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. CO testing records were also reviewed on site.

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EUHMAPLANT unless the fabric filter dust collector is 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. The minimum pressure drop shall not be less than 2 inches, water gauge, except when a large number of filter bags have been replaced or other reason acceptable to the AQD. Attached pressure drop records state they are consistently running around 4 inches of water.

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. For conditions 1-4 all required testing was successfully completed on 10/11/2010.

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. Electronic records were reviewed on site and copies are attached.

2. The permittee shall monitor, in a satisfactory manner, the virgin aggregate feed rate and the RAP feed rate to EUHMAPLANT on a continuous basis. Records of the feed rate were reviewed on site.

3. The permittee shall monitor (and keep records per SC VI.9), with a handheld CO monitor, the CO emissions from EUHMAPLANT and the production data associated with the time the emissions data were collected. The CO emissions should be less than 500 ppmv to ensure EUHMAPLANT is operating properly. One data set shall be recorded for each of the following occurrences:

- a) Upon start-up of each paving season.
- b) Upon a malfunction of the drum dryer or its associated burner.
- c) After every 500 hours of operation.

A data set shall consist of at least eight separate instantaneous CO readings and shall be taken over a total time period of 30 minutes or longer. CO records were reviewed on site.

4. The permittee shall monitor emissions and operating information in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and I for EUHMAPLANT. The permittee shall keep records of all source emissions data and operating information on file and make them available upon request. Emissions records were readily available, however, initial submittal was incomplete because only a portion of the file was submitted.

5. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all drum mixer/burner and fabric filter dust collector components of EUHMAPLANT maintained and operating in a satisfactory manner at all times. The owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to EUHMAPLANT. Maintenance records for the fabric filter dust collector shall be consistent with the Preventative Maintenance Program specified in Appendix B. Maintenance records were reviewed on site.

6. The permittee shall keep the following records for each calendar month that EUHMAPLANT is operated:

- a) Identification, type and the amounts (in gallons) of all fuel oils combusted. No RUO being used.
  - b) Sulfur content (percent by weight), specific gravity, flash point, and higher heating value (Btu/lb) of all fuel oils being combusted. No RUO being used.
  - c) Tons of hot mix asphalt containing RAP produced, including the average percent of RAP per ton of hot mix asphalt produced containing RAP. Records being maintained.
- Electronic records were reviewed on site and copies are attached.

7. The permittee shall keep intermittent daily records of the following production information for EUHMAPLANT:

- a) The virgin aggregate feed rate.
- b) The RAP feed rate.
- c) The asphalt paving material product temperature.
- d) Information sufficient to identify all components of the asphalt paving material mixture.

Upon start-up, the initial mix design and time shall be recorded. When a new mix design is activated after start-

up, the time and new mix design shall be recorded. Records were reviewed on site. These records were reviewed on site.

8. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of all criteria pollutants and TACs listed in the Emission Limit Table for EUHMAPLANT. Electronic records were reviewed on site and copies are attached.

9. The permittee shall keep records, as described in SC VI.3, of all CO emissions and related production data including the dates and times emissions were monitored. Electronic records were reviewed on site and copies are attached.

10. The permittee shall keep, in a satisfactory manner, daily, monthly and 12-month rolling time period records of the amount of HMA paving materials produced from EUHMAPLANT. Electronic records were reviewed on site and copies are attached. Company is maintaining a continuous 12-month records and reviewed on site on September 25, 2014. Company provided a USB drive with the entire folder of data so rolling numbers were evident in response to a request for additional data.

## **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUHMAPLANT. Letter received on March 26, 2010. Commenced operation on April 26, 2010.

## **VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Stack dimensions were not verified as part of tis compliance inspection.
1. SVHMAPLANT	47	60	

### **The following conditions apply to EUYARD**

**DESCRIPTION:** Fugitive dust sources including: Plant roadways, Plant yard, Material storage piles, Material handling operations (excluding cold feed aggregate bins)

**Flexible Group ID:** FGFACILITY

**POLLUTION CONTROL EQUIPMENT:** Fugitive Dust Control Plan is being implemented.

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. Records are being maintained.
2. The permittee shall calculate, in a satisfactory manner, the annual fugitive dust emissions of particulate matter for EUYARD using the current U. S. EPA Compilation of Air Pollutant Emission Factors (AP-42) or other emission factors approved by the Department such as those used in the MAERS. MAERS report was submitted.

### **The following conditions apply to EUACTANKS**

**DESCRIPTION:** Liquid asphalt cement storage tanks

**Flexible Group ID:** FGFACILITY

**POLLUTION CONTROL EQUIPMENT:** Vapor condensation recovery units

### **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUACTANKS unless a vapor condensation and recovery system is installed, maintained, and operated in a satisfactory manner. Vapor recovery is installed and being maintained.

#### **The following conditions apply to: EUSILOS**

**DESCRIPTION:** Hot Mix Asphalt (HMA) paving material product storage silos

**Flexible Group ID:** FGFACILITY

**POLLUTION CONTROL EQUIPMENT:** Emission capture system (top of silo)

### **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUSILOS unless an emission capture system for the top of each storage silo is installed, maintained, and operated in a satisfactory manner. Silos have an emission capture system there was some steam coming from one of the silos which quickly dissipated and did not appear to contain any particulate.

#### **FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EUHMAPLANT EUYARD EUACTANKS EUSILOS

#### **The following conditions apply Source-Wide to: FGFACILITY**

### **I. EMISSION LIMITS**

**DESCRIPTION:** All process equipment source-wide

**Emission Units:** EUHMAPLANT, EUYARD, EUACTANKS, EUSILOS

**POLLUTION CONTROL EQUIPMENT:**

Pollutant	Limit	Time Period	Equipment	COMPLIANCE
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	Aggregate HAPS are less than 0.69 tons as of August 2014.
2. Aggregate HAPS	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	Aggregate HAPS are less than 0.69 tons as of August 2014.

### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years

Records are being maintained and appear to demonstrate compliance.

#### **Appendix A FUGITIVE DUST CONTROL PLAN**

**PURPOSE:** This plan provides dust control strategies for the areas adjacent to and associated with the

equipment operations involved in the manufacture of Hot Mix Asphalt (HMA) paving materials. Compliant with the fugitive dust control plan.

#### **Appendix B**

##### **PREVENTATIVE MAINTENANCE PROGRAM FOR THE FABRIC FILTER DUST COLLECTOR**

The Preventative Maintenance Program for the Fabric Filter Dust Collector is for the purpose of keeping the dust collector in good operating condition, and thereby, maintaining the rated capture efficiency of the dust collector for the control of particulate matter. ALL REFERENCES TO VISIBLE EMISSIONS IN THIS DOCUMENT, PARTICULARLY IN SEC. 5, REFER SPECIFICALLY TO VISIBLE EMISSIONS CAUSED BY A DUST (PARTICULATE) EMISSION.

The preventative maintenance plan was evaluated during this compliance inspection it is being implemented and appears to be sufficient to comply with the requirements of Appendix B.

#### **Appendix C**

##### **EMISSION ABATEMENT PLAN FOR STARTUP, SHUTDOWN AND MALFUNCTIONS**

Requirements of this Appendix were evaluated on site during the compliance inspection and it appeared the facility is in compliance with the requirements of Appendix C

#### **Appendix D**

##### **COMPLIANCE MONITORING PLAN (CMP) FOR FACILITIES BURNING RECYCLED USED OIL (RUO)**

This was not evaluated since the facility is not burning recycled used oil.

NAME Denise Dwyer

DATE 9.25.14

SUPERVISOR PAB