

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

N743645230

FACILITY: Shook Asphalt Co. Inc.		SRN / ID: N7436
LOCATION: 8281 SNOWS LAKE RD., GREENVILLE		DISTRICT: Grand Rapids
CITY: GREENVILLE		COUNTY: MONTCALM
CONTACT: Tricia Eyer, Secretary		ACTIVITY DATE: 07/19/2018
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Shook Asphalt Company, Inc. (SA) facility at 11:08 am on July 19, 2018 to complete a scheduled, unannounced inspection.

Facility Description

Prior to entering the facility, offsite odor and visible emissions observations were completed. The weather conditions were middle 70°s F, partly cloudy and winds from the south at 5-10mph. An asphalt odor was observed to the north of the site. Fugitive dust was noted during offsite observations and will be discussed further in this report.

Upon arrival, AQD staff AS met with Ms. Tricia Eyer, Secretary and it was concluded that SA staff were heading to lunch. AQD staff AS postponed the inspection for an hour. Upon starting the inspection, select records were requested and discussed with Ms. Eyer. Additionally, the Michigan Annual Emissions Reporting System (MAERS) for SA was discussed at length with Ms. Eyer. Following the records review, a tour of the facility and remaining onsite operations were discussed with Tom, Plant Operator. The layout of the facility included an office building, a control building and all associated asphalt plant processing equipment. Since the last inspection in 2017, the asphalt processing equipment has been repainted.

SA is a batch mix asphalt plant. During operation, particulate matter (PM) generated from drying aggregate is collected and controlled by the baghouse on site. Since the plant does not operate with any silos, no loadout control is required. The facility is in operation with one Opt Out Permit to Install (PTI) No. 37-05A, and is a synthetic minor source for hazardous air pollutants (HAPs). The facility is also subject to New Source Performance Standards Subparts A and I. Conditions related to these standards will be discussed further in this report.

EUHMAPLANT

This emission unit is for the hot mix asphalt (HMA) facility including the 150 tons per hour batch plant and the fabric filter dust collector.

Various pollutant emission limits are identified for this emission unit and are provided below.

Pollutant	Limit	Time Period
PM	0.04 gr/dscf	Test Protocol ³
PM	0.065 lb per ton ²	Test Protocol ³

CO	0.1980 lb per ton ²	1 hour
Lead	2.0 x 10 ⁻⁶ lb per ton ¹²	Test Protocol ³
Benzene	0.001 lb per ton ²	Test Protocol ³
Toluene	0.006 lb per ton ²	Test Protocol ³
Ethylbenzene	0.001 lb per ton ²	Test Protocol ³
Xylene	0.001 lb per ton ²	Test Protocol ³
Naphthalene	0.001 lb per ton ²	Test Protocol ³
Formaldehyde	0.01 lb per ton ²	Test Protocol ³
Acrolein	0.0005 lb per ton ²	Test Protocol ³
Arsenic	1.0 x 10 ⁻⁶ lb per ton ²	Test Protocol ³
Nickel	1.0 x 10 ⁻⁴ lb per ton ²	Test Protocol ³
Manganese	5 x 10 ⁻⁵ lb per ton ²	Test Protocol ³
¹ Annual limits based on 100,000 tons HMA paving material production. ² Pound pollutant per ton of HMA paving material produced. ³ Test Protocol shall specify averaging time.		

All emission limits for all criteria pollutants and HAPs, except for the hourly limit for carbon monoxide (CO), are based on the testing protocol. The most recent stack test was completed in 2006 for PM. The stack test verified that SA had met the 0.04 gr/dry standard cubic foot limit. Continued compliance with all emission limits previously mentioned is through continued satisfactory operation of the baghouse and proper combustion. Monthly and 12-month rolling total records were reviewed for all criteria pollutants and HAPS since June 2017. SA is keeping track of monthly and 12-month rolling totals for all permitted criteria pollutants and individual/aggregate HAPs. Additionally, after further review all individual and aggregate HAP 12-month rolling totals are well within their permitted limits.

During the inspection, it was stated that SA only burns natural gas and does not use any asbestos tailings or waste materials containing asbestos in their asphalt. Additionally, SA does not use any recycled asphalt materials (RAP), only virgin aggregate.

Per Special Condition (SC) 1.5 and 1.6, SA is not allowed to process more than 100,000

tons of HMA paving materials per a 12-month rolling time period and no more than 150 tons of HMA paving materials per hour determined by dividing the total daily production by the hours of operations. Records of the 12-month rolling totals were requested and reviewed. For the month of June 2018 1,467 tons of HMA materials were processed. As of June 2018, the 12-month rolling total was 9,293.25 tons of HMA materials, which is well within the permitted limit. Previous 12-month rolling totals were reviewed and concluded to be within the permitted limit. Daily production totals of HMA paving materials were reviewed for the 2018 paving season. The highest daily total per hour observed was on July 3, 2018 at 87.14 tons per hour, which is well within the permitted limit. Based on this, SA appears to be well within their permitted daily per hour production totals of HMA paving materials.

The fugitive dust control plan (Appendix A) and the Preventative Maintenance Program for the fabric filter dust collector (Appendix B) appeared to be implemented and will be discussed in more detail further in this report. Records for daily pressure drop readings on the fabric filter were requested and reviewed. Pressure drop readings observed were 1 inch of water column, which is within the permitted limit. SA staff stated that the drum mix burners had been fine tuned for proper burner operation and performance to control CO emissions. At the time of the inspection, the plant was not in operation.

In the September 14, 2017 inspection a violation notice, dated September 19, 2017, had been issued to SA for not completing the required CO monitoring per SC.1.16. In addressing the violation, SA submitted a request dated November 16, 2017 to AQD staff to alternate SC.1.16.a from upon startup of each paving season to upon the first consecutive production period of 30 minutes or longer during each paving season. An approval letter for the change was sent to SA on December 7, 2017. At the time of the inspection, the most recent CO monitoring was done in June 2017. In the 2018 paving season, the site has not completed a job 30 minutes or longer, no malfunctions have occurred, and the site has not been in operation for 500 hours this year; therefore, no CO testing is required at this time.

SA staff stated that the pressure drop gauge had been calibrated per SC.1.18. Records of maintenance activities were requested and reviewed for the 2017 and 2018 paving season. After review, it was concluded by AQD staff AS that SA appears to be adequately keeping track of all maintenance records for the baghouse.

Per SC.1.22, SA shall keep track of the daily virgin aggregate feed rate, asphalt paving material product temperature, information sufficient to identify all components of the asphalt paving material mixture and times each new mix is stated to be produced. Daily aggregate feed rate records and material product temperatures for the 2018 paving season were requested and provided. After further review, SA appears to be adequately keeping track of the daily aggregate feed rates and material product temperatures.

Two different types of asphalt mixes are produced at the SA facility which are a top (finer) mixture and a base (contains larger stone) mixture. It was noted from June 2017 through June 2018 that only the top mixture has been produced during that time frame. It was verified by SA staff that each batch (2,000 lbs) for the top mixture is still the same since the last inspection with the components consisting of 100 lbs of liquid asphalt, 15% pea stone, 65% crushed dirt, and 20% crushed dust.

One stack is listed in association with this emission unit and was observed during the inspection. Though the exact dimensions were not measured, they appeared to be consistent with Opt Out PTI No.37-05A.

EUYARD

This emission unit is for the fugitive dust sources including: plant roadways, plant yard, material storage piles, and material handling operations (excluding cold feed aggregate bins).

Appendix A – Fugitive Dust Control Plan

Records were requested and reviewed for the 2018 paving season.

- SA is keeping adequate records of all “mother nature” events when it rains at the facility. SA has applied water to keep dust down a total of two times in the 2018 paving season thus far. Reviewing the records, it was concluded that May and June were relatively wet months for SA. During the initial VE observations of the site, large amounts of fugitive dust were observed being created from vehicle movement onsite. Fugitive dust was observed blowing offsite, though it was concluded to not be significant enough to be considered a violation. Track out observed from vehicles was limited. Minimizing fugitive dust was discussed at length with SA staff. At the time of the inspection SA had purchased brine for dust control. They are in the process of constructing a brine application apparatus.
- One 10 miles per hour speed limit sign was observed in the entranceway to the site. The remaining speed limit signs had been taken down while painting the processing equipment on site and had not been reposted. AQD staff AS advised SA staff to put back up the remaining speed limit signs.
- Storage piles were observed on site and no significant fugitive dust was observed blowing from the piles.
- Not all areas of the facility were paved. Limited amount of track out from the facility was observed. As previously stated, it was discussed with SA staff on minimizing the amount of fugitive dust generated.
- Any aggregate spilled on roadways appeared to be adequately removed.
- It was stated by staff that trucks leaving the area with HMA paving material were adequately covered.
- Areas leading up to and around the hoppers were observed and concluded to be relatively free of spillage from loading.
- During the previous inspection when the EUHMAPLANT was in operation two areas (a gap between the mixer and weight bucket, and beneath the baghouse) were noted to release what appeared to be a mixture of steam and fugitive emissions. When questioned, SA staff stated the two areas had been fixed.

EUACTANKS

The vapor condensation and recovery system was observed and SA staff stated that it was operating properly.

FGFACILITY

As stated previously, SA is keeping adequate track of all individual and aggregate

HAPs, with 12-month rolling totals well within permitted limits.

Appendix B – Preventative Maintenance Program for the Fabric Filter Dust Collector

The pressure drop gauge reading on the dust collector as previously stated was 1.0 inch of water column at the time of the inspection. Based on EUHMAPLANT SC.1.10 this is considered satisfactorily. Daily pressure drop reading records were requested for the 2017 and 2018 paving season and reviewed. The pressure drop reading has stayed relatively consistent at 1.0 inch of water column and is concluded to be acceptable. A high temperature sensor and alarm system was stated by SA staff to still be in place with a setpoint at 390°F at which point the burner for the plant shuts down. Accumulated fabric filter particulate collected is recycled back into production. SA is keeping track of all maintenance activities. A black light inspection had been completed on September 29, 2017 and upon the startup of the 2018 paving season on April 27, 2018. During the 2018 black light inspection one bag had been replaced. Spare bags were observed on site for replacement. It was concluded that SA appears to be following the Preventative Maintenance Program for the fabric filter dust collector.

Additional observations

- The crusher owned by Mr. Shook that was observed during the 2017 inspection was still on site. From previous inspections this piece of equipment has been in place since the early 1960s. Based on the age, this piece of equipment is exempt from permitting and New Source Performance Standards.

MAERS

Following the records review the MAERS submittal was discussed at length with Ms. Eyer. SA is a seasonal facility and staff are not available during the time frame when the MAERS Report can be submitted. In order to help prevent SA from being late submitting future MAERS Reports, AQD staff AS provided copies of MAERS documents to be filled out and submitted at the end of the paving season before leaving. Additionally, AQD staff AS helped SA staff identify helpful information on the AQD MAERS website.

Conclusion

A final discussion was completed with AQD staff AS and Ms. Eyer. Based on the review of the records provided and the facility walk through, SA appears to be in compliance with Opt Out PTI No. 37-05A and applicable air pollution control rules.

NAME

Adam E Shook

DATE

08/07/18

SUPERVISOR

[Signature]