

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N743663867

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: 07/07/2022
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	
SUBJECT: On-site air quality compliance inspection.		SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:		

Introduction

On July 7, 2022 State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) staff member Scott Evans (SE) conducted an on-site inspection of the Shook Asphalt Co. Inc. facility located at 8281 Snows Lake Rd. in Greenville, Michigan, to assess compliance with the requirements of Permit to Install (PTI) No. 37-05A and all other applicable air quality rules and regulations. Shook Asphalt is a batch mix asphalt manufacturing plant. It is a Synthetic Minor (SM) Opt Out source for Hazardous Air Pollutants (HAPs).

Upon arrival at the facility, SE conducted an initial inspection of the area surrounding the facility. No odors or visible emissions were noted during this initial inspection of the facility perimeter. After entering the facility, SE spoke with Tricia Eger (TE) and a brief discussion was had to discuss the purpose of the visit. After this discussion, an inspection was conducted, during which the production yard and equipment were visited. During this inspection, production equipment was not in operation as the facility only operates an average of 3-4 hours per week during production season. However, equipment could still be observed for proper installation and functionality and records could be reviewed to determine compliance during this inspection.

PTI No. 37-05A

The facility operates with one Opt-Out Permit PTI No. 37-05A. This permit includes requirements for three emission units (EUs) and one flexible group (FG): EUHMAPLANT, EUYARD, EUACTANKS, FGFACILITY.

EUHMAPLANT

This emission unit includes process equipment for a 150 tons per hour hot mix asphalt (HMA) batch plant and the associated fabric filter dust collector.

This EU has the following emission limit requirements:

Pollutant	Limit ¹
PM	0.04 gr/dscf
PM	0.065 lb per ton ²
CO	0.1980 lb per ton ² per hour
Lead	2.0×10 ⁻⁶ lb per ton ²
Benzene	0.001 lb per ton ²
Toluene	0.006 lb per ton ²
Ethylbenzene	0.001 lb per ton ²
Xylene	

Pollutant	Limit ¹
	0.001 lb per ton ²
Naphthalene	0.001 lb per ton ²
Formaldehyde	0.01 lb per ton ²
Acrolein	0.0005 lb per ton ²
Arsenic	1.0×10^{-6} lb per ton ²
Nickel	1.0×10^{-4} lb per ton ²
Manganese	5.0×10^{-5} lb per ton ²

Compliance with the above requirements is demonstrated through recordkeeping requirements, which are discussed later in this report.

This EU has the following material usage limit requirements:

- Facility may not burn any fuel other than Natural Gas.
- Facility may not use asbestos or asbestos containing materials.
- Facility may not use Reclaimed Asphalt Pavement (RAP) without notification and approval by the AQD.
- Facility may not produce more than 100,000 tons of HMA per 12-month rolling annual period.
- Facility may not produce more than 150 tons of HMA per hour.

During the inspection, material and fuel usage was discussed. It was confirmed by TE that the facility does not use asbestos-containing materials or RAP for asphalt production. It was also confirmed that the facility only burns Natural Gas for fuel. Compliance with production limits is demonstrated through recordkeeping requirements, which are discussed later in this report.

This EU has the following process/operational limit requirements:

- The facility may not operate unless the fugitive emission plan in Appendix A is followed.
- Drum mix burners shall be fine-tuned for proper operation to control CO emissions.
- Facility may only operate if an approved plan to limit emissions during startups, shutdowns and malfunctions is in effect.
- Facility may only operate if the fabric filter dust collector is installed and operational.

During the inspection it was confirmed that Appendix A is being followed, as evidenced by required records being kept by the facility. The facility also keeps records of fabric bag house pressure drop readings to demonstrate operation. Pressure drop could not be read during the inspection as production was paused at the time SE arrived. The pressure drop monitor could be seen in working condition and records provided show functionality and proper monitoring of the monitor with all operational days in 2022 showing pressure drop to hold steady at around 1 inH₂O with proper operation parameters being .5 to 5 inH₂O. Drum burner tuning was discussed, and operation was appropriate. During discussion and records review it was also seen that the facility has appropriate plans for limiting emissions during startup, shutdown, and malfunctions and that these plans are being followed.

This EU has the following testing requirements:

- Odor emission testing may be required by the AQD.
- HAP emission rate testing may be required by the AQD.
- PM-10 and CO emissions may be required by the AQD.
- Emission testing required by New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart I must be completed.

At this time, it is not necessary for odor emissions, HAP emissions, PM-10 emissions and CO emissions to be tested. Records show that appropriate NSPS 40 CFR Part 60 Subpart I testing was completed on October 6, 2006. No further testing regarding NSPS 40 CFR Part 60 Subpart I is necessary at this time.

This EU has the following monitoring requirements:

- Aggregate feed rate shall be monitored daily.
- CO emissions shall be monitored using a handheld CO monitor upon malfunction or every 500 hours of operation.
- Emissions shall be monitored in accordance with NSPS 40 CFR Part 60 Subparts A & I.
- Dust collector operation must be monitored.

Compliance of all of the above requirements is monitored through recordkeeping requirements outlined below.

The EU has the following recordkeeping requirements:

- Facility must retain emissions and operational records for NSPS 40 CFR Part 60 Subparts A & I.
- Facility must maintain a log of all maintenance operations conducted.
- Daily aggregate feed rate.
- Asphalt paving material product temperatures.
- Records identifying all asphalt components.
- Monthly and 12-Month Rolling annual emissions of all HAPs.
- CO monitoring records.
- Monthly and 12-month rolling annual HMA production amounts.

Necessary records were reviewed briefly on site and copies were sent to the AQD for detailed review at a later date. Provided records included the entire operational season of 2021 and records for the operational season of 2022 so far. The following analyses were made from the provided records:

- PM emissions are estimated utilizing test results for NSPS 40 CFR Part 60 Subpart I. A copy of the records is included with this report. Averages for the 2021 operational season show that PM emissions were around 0.04 lbs/ton.
- Maintenance logs are maintained and were reviewed on site. A copy of the maintenance overview log is included with this report.

- Aggregate feed rates are recorded. A copy is included with this report. June of 2022 saw 1170.45 tons of aggregate fed to production for an average of 63.6 tons per hr of operation.
- Product temperature logs are kept. A copy is included with this report. Temperatures consistently hold approximately 350°F.
- Asphalt components are tracked by shipment records and were seen on site to be compliant with requirements.
- HAP emission records were reviewed and a copy is included with this report. For brevity, individual analyses are not written here, but can be reviewed with the included records to determine compliance. All appear to be compliant with permitted requirements.
- CO monitoring records were provided and a copy is included with this report. Readings taken in 2021 demonstrate CO emissions to be approximately 240 PPM during operation. When this value is used to calculate emission rates, the most recent complete month on record of May, 2022 demonstrated CO emissions at 0.066lbs per ton² per hour, which is well below the permitted rate of 0.1980lbs per ton per hour.
- HMA production records were provided and the following analyses were produced. A copy of the records is included with this report.
 - Highest monthly HMA production level in 2022 so far was from June 20-23 during which 261.5 tons were produced over 3.6 hrs (average of 72.6 tons/hr)
 - HMA production level for the operational season of 2021 was 8587.25 tons over 139.4 hrs (average of 61.6 tons/hr).

As demonstrated above the facility appears to be compliant with all emission limits, material limits, and record keeping requirements.

This EU has one associated stack that is required to be no more than 48 inches in diameter and no less than 38 feet above ground level. The stack was not directly measured for safety reasons but appeared to be compliant during inspection.

EUYARD

This EU includes fugitive dust sources including plant roadways, plant yard, material storage piles, and material handling operations.

This EU has one process/operational limit, which is that the requirements of Appendix A must be followed if the facility is in operation. As discussed above, this was observed during the inspection and found to be compliant. Roadways appeared clean and free of excess dust. Trucks entering and leaving the facility could be seen to not be kicking up excess dust. Roadways leading away from the facility appeared free of excess dust. Material storage piles were appropriately blocked from wind with a combination of natural hills, walls, and coverings to prevent excess dust release.

Shook is required to include fugitive dust emissions with the Michigan Air Emissions Reporting System (MAERS). The MAERS submission for fiscal year 2022 was submitted by the facility and all required fugitive dust emissions sources were reported properly. Though components of the report were submitted late and a violation notice was issued, this has been resolved and the submission has been completed.

EUACTANKS

This EU includes all liquid asphalt cement storage tanks. It has one process/operational limit, which is that the tanks may only be operated if the vapor condensation and recovery system is operational and properly maintained. During the inspection, the equipment was not operating as discussed above. However, the equipment could be seen to be properly installed and all monitoring equipment appeared in good, working condition. This is acceptable for demonstrating compliance.

FGFACILITY

This FG applies to all process equipment at the stationary source including equipment covered by other permits, grand-fathered equipment and exempt equipment.

This FG has two emission limit requirements:

- Individual HAPs are limited to 8.9 tons per year (tpy) for each 12-month rolling annual period.
- Aggregate HAPs are limited to 22.4 tpy for each 12-month rolling annual period.

Compliance with these emission limits is demonstrated through recordkeeping requirements below.

This FG has the following recordkeeping requirements:

- Individual HAP emissions.
- Aggregate HAP emissions.

Records were reviewed on site and copies were sent to the AQD for detailed analysis. The following analyses were determined from the records:

- The highest individual HAP emissions were for Lead at 85.86 lbs for the entire 2021 operational season.
- The highest aggregate HAP emissions were 177.24 lbs for the entire 2021 operational season.

These values demonstrate compliance with the above listed HAP emission limits.

Conclusion

At the conclusion of the inspection, the facility appears to be compliant with all requirements of PTI No. 37-05A as well as all other air quality rules and regulations.

NAME Scott Evans

DATE 8/2/2022

SUPERVISOR HH