

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

B414758926

<b>FACILITY:</b> RIETH RILEY CONSTRUCTION CO INC		<b>SRN / ID:</b> B4147
<b>LOCATION:</b> 11300 E 14 MILE RD, MANTON		<b>DISTRICT:</b> Cadillac
<b>CITY:</b> MANTON		<b>COUNTY:</b> WEXFORD
<b>CONTACT:</b> John Berscheid , Technical Services Manager		<b>ACTIVITY DATE:</b> 07/12/2021
<b>STAFF:</b> Kurt Childs	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> 2021 FCE.		
<b>RESOLVED COMPLAINTS:</b>		

**Full Compliance Evaluation of the Rieth Riley Manton asphalt plant including site inspection and records review to determine the facility's compliance with Permit to Install (PTI) No. 53-70J and the air pollution control rules. During the on-site inspection I met with Josh Berry the plant operator who was running the plant, answered my questions and provided the records maintained on site.**

**EU-001 – One hot mix asphalt facility consisting of the 400 tons per hour aggregate conveyors, 400 tons per hour counterflow drum mixer, and a 70,000 acfm baghouse. At the time of the inspection the drum dryer had just shut down, though asphalt was still in the silo's and trucks were still being loaded. There were no visible emissions from the top of the silos or from the truck loadout. I returned to the facility the following week and observed the plant while it was operating. No visible emissions were present from the drum dryer stack or associated equipment.**

**Emission Limits – Compliance with the concentration limits and pound per ton of hot mix asphalt (HMA) limits is demonstrated through stack testing. Stack testing was previously performed and indicated compliance with the aforementioned limits in the PTI.**

Pollutant	Equipment	Limit	Time Period
PM	EU-001	0.04 gr/dscf	U.S. EPA Test Method 5
PM	EU-001	17.9 tpy <sup>1</sup>	12 month rolling time period
SO <sub>2</sub>	EU-001	0.20 lb/ton HMA <sup>2</sup>	U.S. EPA Test Method
SO <sub>2</sub>	EU-001	89.5 tpy <sup>1</sup>	12 month rolling time period
NO <sub>x</sub>	EU-001	0.12 lb/ton HMA <sup>2</sup>	U.S. EPA Test Method
NO <sub>x</sub>	EU-001	53.7 tpy <sup>1</sup>	12 month rolling time period
CO	EU-001	0.201 lb/ton HMA <sup>2</sup>	U.S. EPA Test Method

<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>
<b>CO</b>	<b>EU-001</b>	<b>89.9 tpy<sup>1</sup></b>	<b>12 month rolling time period</b>
<b>VOC</b>	<b>EU-001</b>	<b>0.058 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>VOC</b>	<b>EU-001</b>	<b>26.0 tpy<sup>1</sup></b>	<b>12 month rolling time period</b>
<b>Lead</b>	<b>EU-001</b>	<b>2.02 E-6 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Lead</b>	<b>EU-001</b>	<b>9.0 E-4 tpy<sup>1</sup></b>	<b>12 month rolling time period</b>
<b>Benzene</b>	<b>EU-001</b>	<b>0.001 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Toluene</b>	<b>EU-001</b>	<b>0.006 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Ethylbenzene</b>	<b>EU-001</b>	<b>0.001 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Xylene</b>	<b>EU-001</b>	<b>0.001 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Naphthalene</b>	<b>EU-001</b>	<b>0.001 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Formaldehyde</b>	<b>EU-001</b>	<b>0.006 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Acrolein</b>	<b>EU-001</b>	<b>0.0006 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Arsenic</b>	<b>EU-001</b>	<b>1E-06 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Nickel</b>	<b>EU-001</b>	<b>0.0001 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>
<b>Manganese</b>	<b>EU-001</b>	<b>5E-05 lb/ton HMA<sup>2</sup></b>	<b>U.S. EPA Test Method</b>

The tons per 12 month rolling time period emissions are calculated at the end of each month. The calculations use emission factors contained in the PTI or emission factors derived from stack testing. Records (attached) submitted by the company upon request indicate compliance with the emission limits. The highest 12 month rolling time period emissions occurring in May 2021 with the following reported emission rates:

Particulate Emissions	2.08	Tons		Co Emissions	10.43	Tons
Nitrogen Oxide Emissions	6.23	Tons		H2S04 Emissions	0.17	Tons
Sulfur Dioxide Emissions	7.27	Tons				
Lead Emissions	0.00	Tons				
HCL Emissions	0.31	Tons				

**Material Limits – Recycled asphalt pavement (RAP) is limited to 50%, based on a monthly average. RAP usage is tracked each day and entered in the daily Plant Operator Log sheet. Records indicate that the monthly averages range between 21.5% and 23%.**

**Fuel burned in the dryer/mixer drum is limited to natural gas, propane, butane, Nos 2, 4, 5, 6 fuel oil, or specification recycled used oil (RUO). At the time of the inspection the plant is running only on propane.**

**Process/Operation Restrictions – Total HMA production per 12 month rolling time period is limited to 895,000 tons. Records indicate the facility is well below the permit limit. The highest 12 month rolling average plant HMA production was 103,788 tons.**

**Equipment – Preventative maintenance performed on the baghouse consisted of black light leak checks. All of the bags were replaced in 2018 and non were required to be replaced since. Records indicate the differential pressure across the baghouse averages around 2.5 inches water gauge, which is within the acceptable range.**

**Testing – Stack testing was previously performed for demonstration of compliance with the emission limits; therefore, this section is not applicable.**

**Monitoring – CO monitoring is required at the startup of each paving season, upon a malfunction of the drum burner, and every 500 hours of operation. The results of the monitoring are required to be recorded and made available to the AQD upon request. I reviewed records from 2019 and 2020. CO readings averages around 450 ppm.**

**Recordkeeping/Notification/Reporting – Daily production records are maintained and are used to generate the required monthly and 12 month rolling average throughput and emission records (attached).**

**Virgin aggregate feedrates, liquid asphalt feedrates, and product temperature were continuously monitored and recorded every fifteen minutes or more frequently if a change in HMA products and feedrates were made by the plant operator.**

**RUO is no longer used so these recordkeeping requirements are not currently applicable.**

**Stack/Vent Restrictions – During the inspection, the stack appeared to meet the 45.25 inch maximum diameter and 100 ft minimum height. constructed in accordance with the parameters listed in the PTI.**

**EUYARD – Fugitive dust sources associated with the HMA facility, consisting of all plant roadways, the plant yard, all material storage piles, and all material handling operations except cold feed aggregate bins.**

**Emission Limits – There are no emission limits associated with this emission unit; therefore, this section is not applicable.**

**Material Limits** – There are no material limits associated with this emission unit; therefore, this section is not applicable.

**Process/Operational Restrictions** – The facility is not allowed to operate unless the Fugitive Dust Control Plan located in Appendix C of the PTI is implemented. At the time of the inspection, there were no visible emissions from the storage piles or from the front end loader traffic. Signs limited traffic to 10 miles per hour were posted as well as reminders for drivers to tarp their loads.

**Equipment** – There are no equipment restrictions associated with this emission unit; therefore, this section is not applicable.

**Testing** – There are no testing requirements associated with this emission unit; therefore, this section is not applicable.

**Monitoring** – There are no monitoring requirements associated with this emission unit; therefore, this section is not applicable.

**Recordkeeping/Reporting/Notification** – Fugitive dust emissions using AQD approved emission factors were calculated and reported to the Michigan Air Emission Reporting System as required by the PTI.

**Stack/Vent Restrictions** – There are no stack or vent restrictions associated with this flexible group; therefore, this section is not applicable.

**EUACTANKS** – Three liquid asphalt cement storage tanks.

**Emission Limits** – There are no emission limits associated with this emission unit; therefore, this section is not applicable.

**Material Limits** – There are no material limits associated with this emission unit; therefore, this section is not applicable.

**Process/Operational Restrictions** – As required by the PTI, vapor condensation and recovery units were installed on each storage tanks to control VOC emissions.

**Equipment** – There are no equipment restrictions associated with this emission unit; therefore, this section is not applicable.

**Testing** – There are no testing requirements associated with this emission unit; therefore, this section is not applicable.

**Monitoring** – There are no monitoring requirements associated with this emission unit; therefore, this section is not applicable.

**Recordkeeping/Reporting/Notification** – There are no recordkeeping, reporting, or notification requirements associated with this emission unit; therefore, this section is not applicable.

**Stack/Vent Restrictions** – There are no stack or vent restrictions associated with this flexible group; therefore, this section is not applicable.

**EUSILOS** -Two HMA product storage bins.

**Emission Limits** - There are no emission limits associated with this emission unit; therefore, this section is not applicable.

**Material Limits** - There are no material limits associated with this emission unit; therefore, this section is not applicable.

**Process/Operational Limits** - The capture system installed on the top of each HMA silo appeared to be operating properly as there were no visible emissions from the system.

The silo loadout area was completely enclosed except for the truck entrance and exit. There was no evidence of visible emissions from the loadout area. Emissions captured from the loadout area were vented into the burning zone of the counterflow drum.

**Equipment** - There are no equipment requirements associated with this emission unit; therefore, this section is not applicable.

**Testing** - There are no testing requirements associated with this emission unit; therefore, this section is not applicable.

**Monitoring** - There are no monitoring requirements associated with this emission unit; therefore, this section is not applicable.

**Recordkeeping/Reporting/Notification** - There are no recordkeeping, reporting, or notification requirements associated with this emission unit; therefore, this section is not applicable.

**Stack/Vent Restrictions** - There are no stack or vent restrictions associated with this emission unit; therefore, this section is not applicable.

**FG-FACILITY** - All equipment at the facility including equipment covered by other permits, grandfathered equipment and exempt equipment.

**Emission Limits** - Criteria pollutant emissions from the entire facility is limited to 89.9 tons per 12 month rolling time period and hazardous air pollutant (HAP) emissions are limited to 8.9 tons per 12 month rolling time period for a single HAP and 22.49 tons per 12 month rolling time period for aggregate HAPs. The Permit to Install does not contain any recordkeeping conditions to demonstrate compliance with the emission limits. However, most of the emissions from the facility come from EU-001. Criteria pollutant emissions from EU-001 are well below the limits specified in the Permit to Install. HAP stack testing data from EU-001 shows that the HAPs emissions are well below the emission limits.

**Material Limits** - There are no material limits associated with this flexible group; therefore, this section is not applicable.

**Process/Operational Limits** - There are no process or operational limits associated with this flexible group; therefore, this section is not applicable.

**Equipment** - There are no equipment requirements associated with this flexible group; therefore, this section is not applicable.

**Testing** - There are no testing requirements associated with this flexible group; therefore, this section is not applicable.

**Monitoring** - There are no monitoring requirements associated with this flexible

**group; therefore, this section is not applicable.**

**Recordkeeping/Reporting/Notification - There are no recordkeeping, reporting, or notification requirements associated with this flexible group; therefore, this section is not applicable.**

**Stack/Vent Restrictions - There are no stack or vent restrictions associated with this flexible group; therefore, this section is not applicable.**

**CONCLUSION – Based upon the on-site inspection and records review, AQD staff considers to the facility to be in compliance with PTI No. 53-70J and the air pollution control rules at this time.**

NAME \_\_\_\_\_

DATE \_\_\_\_\_

SUPERVISOR \_\_\_\_\_