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

B414736077

FACILITY: RIETH RILEY CONSTRUCTION CO INC		**SRN / ID:** B4147
LOCATION: 11300 E 14 MILE RD, MANTON		**DISTRICT:** Cadillac
CITY: MANTON		**COUNTY:** WEXFORD
CONTACT: John Berscheit , Technical Services Manager		**ACTIVITY DATE:** 08/22/2016
STAFF: Shane Nixon	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: on-site inspection and records review		
RESOLVED COMPLAINTS:		

AQD staff traveled to the Rieth Riley asphalt plant located east of Manton to perform an inspection. The purpose of the inspection was to determine the facility's compliance with Permit to Install (PTI) No. 53-70J.

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.

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.

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 with the highest 12 month rolling time period emissions occurring in July 2016.

Material Limits – Recycled asphalt pavement (RAP) is limited to 50%, bused upon a monthly average. Records indicate that the monthly averages range between 20% and 24%. The most recent month, July 2016, indicates a monthly average of 22.47%.

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 this point in time, the facility uses RUO since it is readily available and the least expensive of the fuels the facility is allowed to burn.

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. For the 12 month rolling time period ending July 2016, the plant HMA production was 60,734 tons.

Hazardous waste is not allowed to be burned at the facility. When burning RUO as fuel, the facility must prove it is not hazardous waste. Analyses of each RUO shipment indicates the fuel is not hazardous waste. The most recent fuel analysis in comparison to the limits in the PTI is below:

Contaminant	Limit	Concentration in fuel, ppmw
Arsenic	5 ppmw	<1 ppmw
Cadmium	2 ppmw	<0.1 ppmw
Chromium	10.0 ppmw	<4 ppmw
Lead	100.0 ppmw	8.3 ppmw
PCBs	1.0 ppmw	<1 ppmw
Total halogens	4,000 pppmw	674 ppmw
Sulfur	1.0% by weight	0.1395% by weight
Minimum flash point	100°F	>200°F
Maximum ash content	1.0% by weight	0.5% by weight
Higher heating value	17,000 Btu per gallon, minimum	140,094 Btu per gallon

All deliveries of waste oil are screened by reviewing the supplier's certificate of analysis and screening an oil sample for total halogens prior to off-loading the fuel.

Equipment – Preventative maintenance performed on the baghouse consisted of repairing leaks. No bags were required to be replaced and there was no evidence of broken bags as the opacity was 10% at the time of the inspection. The differential pressure across the baghouse was 4.4 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 an malfunction of the drum burner, and every 500 hours of operation. The results of the monitoring is required to be recorded and made available to the AQ upon request. The most recent testing was performed on May 18, 2016 and records of the testing were available for AQD review.

Recordkeeping/Notification/Reporting – Records of the amount of HMA processed each calendar month and RUO records were made available to AQD staff upon request.

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.

Based upon records provided by the plant operator, the asphalt plant was producing an HMA mixed called Ultrathin with polymer at a rate of 184.2 tons per hour. The aggregate and RAP moisture contents were 5.3% and 5.5%, respectively. Components of the HMA consisted of sand, washed 5/16" stone, impacted 5/16" stone, and RAP. The feedrates and moisture content of each material was monitored and recorded during the inspection and the attached page contains operational information pertaining to the HMA.

12 month rolling time period emission rate calculations were made available upon request (attached). AQD review has determined the facility to be in compliance with the recordkeeping provisions of the PTI.

Stack/Vent Restrictions – During the inspection, the stack appeared to be 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 form the storage piles or from the front end loader traffic. Recent rain (1.5 inches) was the reason for no visible emissions. 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. The plant operator indicated that 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 the 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.

<u>CONCLUSION</u> – Based upon the on-site inspection and records review, AQD staff considers to the facility to be in compliance with PTI No. 53-70J.

NAME Shane Nixon DATE 8/31/16 SUPERVISOR