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

N138470304

FACILITY: RIETH-RILEY CONSTRUCTION CO., INC.		**SRN / ID:** N1384
LOCATION: 20251 E 19 MILE RD, BIG RAPIDS		**DISTRICT:** Grand Rapids
CITY: BIG RAPIDS		**COUNTY:** MECOSTA
CONTACT: John Berscheit , Technical Services Manager		**ACTIVITY DATE:** 11/02/2023
STAFF: Scott Evans	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: On-site inspection to assess compliance with air quality rules and regulations.		
RESOLVED COMPLAINTS:		

Introduction

On November 2, 2023, 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 Rieth-Riley Construction Co., Inc. facility located at 20251 East 19 Mile Road in Big Rapids, Michigan, to assess compliance with air quality rules and regulations. This facility is a hot mix asphalt plant that utilizes a parallel flow drum to produce asphalt. It has one active Permit to Install (PTI); PTI No. 401-86K. It is subject to New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart I.

Before entering the facility, SE observed the facility perimeter for visible emissions (VEs) and odors. During this part of the inspection there were no observed VEs or odors. After this perimeter inspection, SE entered the facility and was greeted by plant manager Mike Knuth. A brief phone call was had with Area Manager John Berscheit who was to be the contact for further discussion of plant emission records. After a brief discussion to explain the purpose of the visit, an inspection of the facility equipment was conducted in which the production yard and all on-site equipment wwas observed.

PTI No. 401-86K

This permit is the only active permit for this facility. It has requirements for four emission units (EUs) and one flexible group (FG) as listed below:

- EUHMAPLANT
- EUYARD
- EUACTANKS
- EUSILOS
- FGFACILITY

EUHMAPLANT

This EU consists of the 300-ton per hour parallel flow drum mix asphalt plant. It has a Dillman 72M-10 X 816 two piece bag house for pollution control.

This EU has multiple emission limits, however, many are emission rates that were are verified as compliant through the use of historic stack test data. This has been accepted through past inspections and, as the baghouse is currently being maintained appropriately as discussed below, there currently is no basis to require further testing and verification. There are two additional emission limits as follows:

- CO emissions limited to 89 tpy for every 12-month rolling period.
    - Highest recorded 24.57 tpy in April 2023.

- SO_2 emissions limited to 89 tpy for every 12-month rolling period.
    - Highest recorded 24.45 tpy in April 2023.

Above compliance determinations is based on control equipment functionality and records provided, which are discussed further below.

This EU has seven material limits. The first states that only liquid petroleum gas, natural gas, No. 2 through No. 6 fuel oils or Recycled Used Oil (RUO) shall be burned. This was discussed and the facility expressed that no fuels beyond these were used.

The second material limit states that no hazardous waste may be burned on site. The facility confirmed that no hazardous wastes are burned on site.

The third material limit states that no fuels exceeding the following limits may be burned:

This was discussed and the facility had on site records of fuels used that confirmed contents and compliance with these limits.

The fourth material limit states that the facility may not use materials that contain asbestos during production. The facility was able to show material records that confirmed no asbestos is used at the facility.

The fifth material limit states that no asphalt mixture processed can contain more than 50% RAP material based on monthly average. The above-mentioned material records demonstrated compliance with this requirement.

The sixth material limit states that no more than 890,000 tons of HMA paving materials may be processed over any 12-month rolling time period. Production records provided confirmed compliance with this requirement with the highest production rate being 244,451 tons in April 2023.

The final material limit states that no more than 350 tons of HMA paving materials may be processed in any 24-hour time period. The production records provided confirmed compliance with this requirement. An example can be seen where on October 10, the plant ran for 5 hours with the average rate of tons processed per hour in October, which was the highest yield month, of approximately 40 tons per hour. This results in 200 tons processed in one day, which was the longest production day during the highest production month.

This EU has 5 operational restrictions. The first states that the facility may only operate if the fugitive dust plan included in the permit as Appendix A is utilized within the facility. During the inspection it was observed that appropriate dust control measures were in place within the facility.

The second restriction states that the facility may only operate if the preventative maintenance plan included with the permit as Appendix B is implemented. This was discussed and the facility expressed that this plan is maintained on site and followed. Observations appeared to confirm this during the inspection.

The third restriction states that the plant may only operate if the emission abatement plan for startup included in the permit as Appendix C is implemented. During the inspection, this was discussed and the facility confirmed that the plan is followed as necessary during plant startup.

The fourth operational restriction states that the facility may only operate if the compliance monitoring plan included with the permit as Appendix D is implemented. This was discussed and the facility expressed use of the plan as provided. Observations during the inspection appeared to confirm compliance with the requirements.

The final operational restriction requires that the facility fine-tune burners as necessary to properly control CO emissions. It was discussed and the facility expressed that burners are tuned as necessary. The facility also provided proper CO monitoring records to confirm that CO emissions are sufficiently controlled.

This EU has one design parameter, which states that the facility may only operate if a dust collector is installed, maintained, and operated appropriately. During the inspection, it was observed that the baghouse was present and operational. The absence of VEs as well as observation of pressure drop at 3.5 inH_2O (acceptable range for this unit is 1-9 inH_2O) confirmed proper operation and functionality of the baghouse.

This EU has one testing requirement, which states that the facility may be required to test for odor emissions if requested by the AQD. At the time of the inspection there were no observed odors and there have been no recent complaints regarding odors from the facility. At this time, it is not necessary for the facility to test for odor emissions.

This EU has ten recordkeeping requirements. The first states that all records shall be completed in acceptable format and can be provided by the 15th day of any calendar month for the previous month. During the inspection this was discussed, and the facility was able to show that records are kept on site in accordance with the requirement. A digital copy of these records for November 2022 through October 2023 was provided to the AQD for remote review on November 15, 2023.

The second recordkeeping requirement states that RAP feed rate must be monitored continuously. The monitoring equipment and records were observed on site during the inspection. These records were also provided as required, included in the records that confirmed other material processing records.

The third recordkeeping requirement states that CO emission monitoring to confirm compliance with the 500 ppmv limit must occur at the following times:

- Upon startup of each paving season.
- Upon malfunction of the drum dryer or its associated burner.
- After every 500 hours of operation.

Each reading must consist of eight separate readings over at least 30 minutes of time. Records were provided for the 2023 operating season, which appeared to confirm compliance with these requirements.

The fourth recordkeeping requirement expresses that the facility must show records as dictated by NSPS 40 CFR Part 60 Subparts A and I. This is discussed further below in this report along with discussions of these applicable NSPSs.

The fifth recordkeeping requirement states that drum mixer/burner and dust collector components must be maintained properly and that a log of significant maintenance activities must be kept in compliance with Appendix B, as discussed above. The facility did have records of maintenance activities on site and could be provided as requested by the AQD.

The sixth recordkeeping requirement states that the following monthly records must be maintained:

- Type and amount of all fuel oils burned.
- Sulfur content (percent by weight), specific gravity, flash point, and higher heating value (Btu/lb) of all fuel oils being combusted.
- Tons of hot mix asphalt containing RAP produced, including the average percent of RAP per ton of hot mix asphalt produced containing RAP.

Appropriate monthly records were provided and appeared to confirm compliance with the above requirements. A copy of these records is included with this report.

The seventh recordkeeping requirement states that the following daily records must be maintained:

- Virgin aggregate feed rate.
- RAP feed rate.
- Material product temp.
- ID of all components of the mixture.

The facility was able to provide these records in the form of batch records, a sample of which are included with this report.

The eighth recordkeeping requirement states that monthly and 12-month rolling annual emission records of all criteria pollutants and TACs listed in the emission limit table above. These records were provided and are included with this report. A detailed review showed that the facility is using previous testing results to estimate emissions. This is allowed within this requirement and appears to demonstrate compliance with the associated limits above.

The nineth recordkeeping requirement states that records of the above-discussed CO monitoring requirements shall be maintained and provided. As discussed, these records appear to confirm compliance with all monitoring requirement and emission limits related to CO.

The final recordkeeping requirement states that daily, monthly, and 12-month rolling annual records of HMA production shall be maintained. As discussed above, the facility does maintain production records and was able to provide all required records. These records all appeared to demonstrate compliance with all discussed requirements related to HMA.

This EU is required to have one stack at a maximum exhaust dimension of 72 inches and a minimum height of 99 feet above ground. One stack was observed on site. This stack was not measured for

safety reasons, however it appeared to be compliant with the requirements and has not been changed since the previous inspection.

EUYARD

This EU consists of all sources of fugitive dust such as plant roadways, plant yard, material storage piles, and material handling operations.

This EU has one operational restriction that states the fugitive dust plan in Appendix A of the permit must be utilized during operation. During the inspection, this was discussed and the facility expressed that the fugitive dust plan is utilized. Multiple operations within the dust plan were observed in use such as truck watering and roadway sweeping. This appears to demonstrate compliance with the requirement.

This EU has two recordkeeping requirements. The first states that all records shall be completed in acceptable format and can be provided by the 15th day of any calendar month for the previous month. During the inspection this was discussed and the facility was able to show that records are kept on site in accordance with the requirement. A digital copy of these records was provided to the AQD for remote review on November 15, 2023.

The second states that fugitive dust emissions should be calculated annually using approved methods. This facility does monitor and calculate fugitive emissions. Records of this were observed and provided during the inspection. The facility also provides these documents in their annual Michigan Air Emissions Recording System (MAERS) report annually, which is discussed further below.

This EU has one reporting requirement, which states that annual reporting of emissions for the EU shall be reported to the AQD. As mentioned above, this facility has demonstrated compliance with this requirement yearly through required MAERS reporting. This reporting is discussed further below.

EUSILOS

This EU consists of one HMA paving material product storage silo with an associated emissions capture system.

This EU has one operational restriction which states that the storage silos may only be used if emissions capture systems are installed and operational at the top of each silo. These silos were only observed from afar for safety reasons. Emissions records for other EUs and FGs as well as equipment monitoring data were reviewed to confirm proper operation of the equipment. During the inspection, the equipment appeared properly operational and compliant with this requirement.

FGFACILITY

This FG covers all process equipment source-wide.

This FG has two emission limits as shown:
Compliance was determined through review of emissions records, which are discussed further below.

This FG has two recordkeeping requirements. The first states that all records shall be completed in acceptable format and can be provided by the 15th day of any calendar month for the previous month. During the inspection this was discussed and the facility was able to show that records are kept on site in accordance with the requirement. A digital copy of these records was provided to the AQD for remote review on November 15, 2023.

The second recordkeeping requirement requires the following HAP emissions data be properly recorded:

- Monthly individual and aggregate HAP emissions.
- 12-month rolling annual individual and aggregate HAP emissions.

The facility was able to provide these records in order to verify compliance with the recordkeeping requirements as well as compliance with emission limits above. The facility appears to be using stack test data to estimate pollutant emissions, which is allowable within this requirement.

NSPS

This facility is an HMA production facility and so is subject to NSPS 40 CFR Part 60 Subpart I. Within this NSPS are standards for emissions of particulate matter that state that no more than 0.04 gr/dscf and no more than 20% opacity may be emitted by the facility. Compliance with above-discussed emission limits of particulate matter and associated records demonstrates compliance with the 0.04 gr/dscf limit. This facility has historically been cited in violation of opacity limits due to poor baghouse performance. This issue was cited and resolved in 2019. There have been no reported incidences of opacity exceedances since and there was no observed violation during this inspection. At this time the facility appears to be compliant with the NSPS.

Reporting

This facility is required to report annual fugitive emissions by the one active PTI. The facility complies with this through annual MEARS reporting. A copy of the most recent MAERS submission summary is included with this report.

Conclusion

At the conclusion of this inspection the facility appeared to be compliant with all permit requirements as well as all other applicable air quality rules and regulations.

NAME Scott Evans DATE 12/14/2023 SUPERVISOR HH