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

N138454006

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: Chad Waldo , Area Manager		**ACTIVITY DATE:** 06/23/2020
STAFF: Chris Robinson	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: FY '20 on-site inspection to determine the facility's compliance status with applicable air quality rules and regulations including PTI no. 401-86K.		
RESOLVED COMPLAINTS:		

On June 23, 2020, Chris Robinson (CR) from the Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) conducted an on-site scheduled inspection of the Rieth-Riley Construction Company's asphalt plant (SRN N1384) located at 20251 East 19 Mile Road in Big Rapids, Mecosta County Michigan, to determine compliance with applicable air quality rules and regulations, including the facility's Permit to Install No. 401-86K. Per recent field work guidance, CR contacted the facility prior to departure to the site to ensure the facility was operating and proper staff were onsite as well as to prepare for any Covid19 related entry procedures. CR spoke with Chad Waldo, Rieth Riley's Area Manager prior to departure to the facility as well as onsite during the inspection. Proper PPE and social distancing were maintained throughout the inspection.

Upon arrival, identification was provided and Mr. Waldo was again informed of the purpose of the inspection. Prior to entering the plant CR and Mr. Waldo reviewed the facility's permit and any changes or concerns. Per Mr. Waldo there have been no changes to the facility since the prior inspection, however the facility is in the very early phases of planning for a replacement plant. CR and Mr. Waldo discussed Rule 201 requirements prohibiting construction prior to permitting as well as the construction the window for newly issued permits. Mr. Waldo was aware of the requirements and the facility is taking that into account, but at the moment there is no guarantee that they will continue down the path of replacing the plant.

Weather conditions: light drizzle approximately 60F with winds coming out of the west-northwest at approximately 15mph (www.weatherunderground.com). CR surveyed the perimeter of the facility upon arrival for odors and visible emissions. None were observed.

FACILITY DESCRIPTION

Rieth-Riley Construction Company, Inc. (Rieth-Riley) is a hot mix asphalt (HMA) batch plant located in a primarily rural area with the nearest residential structure approximately 700-feet northwest of the facility.

COMPLIANCE EVALUATION

Rieth-Riley is a synthetic minor opt out source for hazardous air pollutants (HAPS). This facility is subject to 40 CFR Part 60, Subpart I – "Standards of Performance for Hot Mix Asphalt Facilities". This facility operates under one permit, PTI No. 401-86K.

PTI No. 401-86K

EUHMAPLANT covers the Hot Mix Asphalt (HMA) plant consisting of aggregate conveyors and a 300 ton per hour parallel flow drum. Particulate matter emissions are controlled by a fabric filter dust collector.

Per EUHMAPLANT SC II.1 Fuel usage is limited to liquid petroleum gas, natural gas, No. 2 through No. 6 fuel oils or Recycled Used Oil (RUO). Per discussions with Mr. Waldo, the facility only uses natural gas. Also, the facility does not burn any hazardous waste, as prohibited in EUHMAPLANT SC II.2, blended fuel oils, as discussed in EUHMAPLANT SC II.3, or any materials containing asbestos, as prohibited in EUHMAPLANT SC II.4. RAP usage is kept below the permit limit of 50% based on a monthly average (EUHMAPLANT SC II.5). Mr. Waldo indicated that the facility keeps RAP to approximately 20% and that the facility cannot operate correctly if the RAP limit is over 30%. The records for June 2019 through May 2020, which are attached, indicate that the highest average monthly percentage of RAP used was in June 2019 at 27%.

Reith-Riley is subject to Toxic Air Contaminant (TAC) limits that required compliance to be demonstrated through testing. However, as noted in previous inspection reports the facility was allowed to use stack test data from a "similar representative" plant to demonstrate compliance with these limits. EUHMAPLANT is also subject to CO and SO2 emission limits, as noted in EUHMAPLANT SC I.4 & I.6, of 89.0 tpy each, based on rolling 12-month

periods. Based on the records provided for June 2019 through May 2020 the highest calculated rolling 12-month total for CO was 24.21 tons (September 2019) and 24.09 tons for SO2 (September 2019), which are well below the permitted limits. The "Time Period/Operating Period" for the SO2 limit established in EUHMAPLANT SC I.6 of the permit is incorrectly listed as being based on "Test Protocol" instead of a "12-month rolling time period as determined at the end of each calendar month". The facility is tracking this monthly and annually based on a rolling 12-month time period as they should be.

The total amount of HMA Rieth Riley can process is limited to 890,000 tons per rolling 12-month time period, as noted in EUHMAPLANT SC II.6, and 350 tons per hour based on a 24-hour period, as noted in EUHMAPLANT SC II.7. As of May 31, 2020, the maximum amount processed since June 2019 was in September of 2019 at 240,929.55 tons. Per Mr. Waldo the facility typically operates at approximately 275 tons per hour and the parallel flow drum has a design specification of 300 tons per hour, so it is not possible to operate over the permitted limit of 350 tons per hour. The facility tracks and maintains records for daily processing rates. On April 28, 2020, the average daily production rate was 162.54 tons/hour and on 5/19/2020 it was 228.98 tons/hour. Based on the facility's monthly records for June 2019 through May 2020 CR calculated the maximum average monthly processing rate to be 239.32 tons/hour which is consistent with available daily records and discussions with Mr. Waldo.

Rieth Riley maintains a Fugitive Dust Plan, a Preventative Maintenance Program, an Emissions Abatement Plan for Startup shutdowns and malfunctions and a Compliance Monitoring Plan (CMP) for the RUO, all of which are included in Appendices A through D of PTI 401-86K. Appendix D is only for the RUO, which Rieth Riley does not use. Per Mr. Waldo, these plans are current.

Rieth Riley is required, per EUHMAPLANT SC III.5 of the permit, to maintain the efficiency of the drum mix burners, to control CO emissions by fine tuning the burners for proper operation and performance. According to Mr. Waldo this is being done at the start of each paving season and upon a malfunction of EUHMAPLANT as required. CO readings are taken after every 500 hours of operation. CO monitoring is being conducted as required per EUHMAPLANT SC VI.3.c. This condition also requires the data set to consist of at least eight (8) separate readings taken over a total time period of 30 minutes or longer. CO monitoring records/Printouts were provided for multiple days (Attached) which included eight (8) readings per day. Readings were taken on March 5, 2019 (Max CO = 284 ppm), July 23, 2019 (Max CO = 103 ppm), October 24, 2019 (Max CO = 481 ppm), May 12, 2020 (Max CO = 492 ppm). Mr. John. Berscheit, Technical Services Manager for Rieth Riley tracks hours of operations and conducts the CO monitoring when necessary. Although all of the CO readings were less than 500 ppm, the readings for October 2019 and May 2020 are very close to this limit. CR discussed this with Mr. Berscheit who is aware of the situation. Per Mr. Berscheit the high CO readings correlate to wet weather. The burner will be tuned if it goes over the 500-ppm limit.

A fabric filter dust collector is required to be installed, maintained, and operated in a satisfactory manner. Per EUHMAPLANT SC IV.1, satisfactory operation of the fabric filter dust collector requires a pressure drop range between 1 and 9 inches of water column. At the time of this inspection the plant was not operating but onsite daily records showed that the pressure drop was being maintained as required.

At this time the AQD is not requesting testing for odors or for additional emission testing as allowed in EUHMAPLANT SC V.1. Maintenance is conducted to keep the equipment in good operating condition as required by EUHMAPLANT SC VI.5. Maintenance records appeared consistent with the facility's Preventative Maintenance Program specified in Appendix B of the Permit. Records were provided and attached.

The facility maintains a spreadsheet for tracking all emissions (Criteria Pollutants and TACs), products used and usage amounts as required per EUHMAPLANT SC VI.6 and VI.8-10 (Attached).

The following information is monitored continuously, per EUHMAPLANT SC VI.2-3 and collected intermittently throughout the day, while operating as required per EUHMAPLANT SC VI.7.a-d: the virgin aggregate feed rate, RAP feed rate, the asphalt paving material product temperature and Information sufficient to identify all components of the asphalt paving material mixture. Daily records were reviewed onsite an example is attached.

Exhaust gases from the plant appear to be vented unobstructed vertically as required in EUHMAPLANT SC V111. Although the stack dimensions were not verified, visually they appeared to meet the permit requirements of having a maximum dimension of 72-inches and a minimum above ground height of 99-feet. Mr. Waldo indicated that there have been no changes to the plant.

EUYARD consists of fugitive dust sources which include the plant roadways, the plant yard, material storage piles and material handling operations (excluding cold feed aggregate bins). The facility stock yard was relatively well maintained. There was some light vehicle traffic and staff were working on repairs in the yard. There were no significant amounts of dust being generated from the traffic or work activities being conducted. The aggregate is loaded into hoppers where it is fed via a conveyor system into the drum. Rieth Riley uses a parallel flow drum to heat the aggregate prior to blending with the liquid asphalt. The facility also uses recycled asphalt product (RAP) to blend with the mix. Once blended the mix is loaded into silos and then dispensed to asphalt trucks below. The facility does not have enclosed load out for the trucks. A fugitive Dust Control Plan is included in Appendix A of the PTI as required by EUYARD SC III.1. At the time of this inspection it appeared that Rieth Riley was following the dust control plan.

EUSILOS consists of HMA paving material product storage silos equipped with an emissions capture system that captures and re-redirects emissions back into the drum burner for further destruction. Silo emissions are NOT controlled by the baghouse. Per Maintenance records (Attached) and discussion with Mr. Waldo and the plant operator, maintenance appears to be conducted as needed to ensure that the silos and plant are being operated properly.

FGFACILITY consists of facility-wide Hazardous Air Pollutant (HAP) emission limits of less than 8.9 tpy for any individual HAP and 22.4 tpy for all HAPs combined. Records were accessible onsite and were provided (Attached). Monthly and 12-month rolling HAP emissions were provided for the time period of June 2019 through May 2020. The highest calculated annual combined HAP emissions were 5.44 tons in September 2019, which is under both the individual and aggregate HAP limits.

MAERS

Actual annual emissions are calculated by the facility using MAERS emission factors. The 2019 information was reported on time to MAERS. The submittal appeared complete with no changes required. The reported emissions are attached to this report and summarized in the table below.

Pollutant	Amount	
	Lb.	Tons
CO	29,861.52	14.93
LEAD	0.14	0.0001
NOX	6,225.70	3.11
PM10, FLTRBLE	12,203.30	6.10
PM10, PRIMARY	5,225.77	2.61
PM2.5, FLTRBL	3,445.56	1.72
SO2	782.08	0.39
VOC	7,355.60	3.68

CONCLUSION

Based on observations and discussions made during the inspection and a subsequent review of the facility's records, Rieth Riley's Mecosta County Asphalt Plant appears to be operating in compliance with applicable air quality rules and regulations including the requirements established in PTI No. 401-86K.

NAME _____ DATE 7-9-20 SUPERVISOR _____