

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

N727155582

FACILITY: PYRAMID PAVING & CONTRACTING		SRN / ID: N7271
LOCATION: 325 N. FAIRVIEW, WEST BRANCH		DISTRICT: Bay City
CITY: WEST BRANCH		COUNTY: OGEMAW
CONTACT: Alicia Kreiger , Controller		ACTIVITY DATE: 09/30/2020
STAFF: Gina McCann	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Inspection to determine if violations from August 2019 had been resolved. FCE completed for facility also.		
RESOLVED COMPLAINTS:		

On September 24, 2020, a scheduled site inspection was conducted by AQD district staff at Pyramid Paving & Contracting in West Branch, Ogemaw County. Mr. Dave Chaffin (QA/QC Certified Technician), Stacey Chaffin and Alicia Krieger (CPA, Controller) was onsite to answer questions. Site inspection activities were conducted with the intent of confirming compliance with Permit to Install (PTI) No. 149-03F and to determine if the violation notice sent August 7, 2019 had been resolved. The facility was open but was not in operation at the time of the inspection. At the time of the inspection, the source was in compliance with PTI 149-03F and had resolved findings from the August 7, 2019 inspection.

FACILITY DESCRIPTION

Pyramid Paving is a hot mix asphalt (HMA) plant and is an existing synthetic minor source. The facility is located at the Glancy Sand & Gravel Pit (SRN N6355), approximately three miles north of West Branch. Another HMA plant, owned and operated by Bolen Asphalt Paving, Inc. (SRN B4164) is also located at the Glancy Pit. The address submitted with the original PTI application is listed as 325 North Fairview Road. However, according to Google Earth, Pyramid Paving is located at the end of Number 250 Road, which runs east from South Fairview Road. The Glancy Pit is bordered by both large and small privately-owned tracts. Those immediately to the south of the HMA plants include residential properties.

FACILITY HISTORY

PTI No. 149-03F was approved on February 13, 2020, but the facility was originally permitted in 2003 under PTI No. 149-03. Since then, the facility modified their permit in 2004, 2005, 2010, 2011, 2018 and 2020. The June 16, 2010 permit modification (149-03C) expanded permitted fuels to allow for slurry oil in addition to the previously approved No. 2 through No. 4 fuel oils, natural gas and propane. The July 20, 2011 permit modification (149-03D) expanded the approved fuels to include recycled used oil (RUO). The approved RUO was only used onsite for a limited time, due to changes in costs and sources. A temporary permit was approved for the facility on May 30, 2018, for the 2018 paving season (149-03E). The temporary permit removed the operational time limits in Special Condition (SC) III.7 under EUHMAPLANT of PTI 149-03D, but expired on August 1, 2018 (SC IX.1, FGFACILITY, PTI 149-03E) and was voided on August 8, 2018. The February 13, 2020 permit modification (149-03F) requested the removal of the operating hours restriction between 5:00 a.m. and 6:00 p.m. This was in response to the violation notice sent on August 7, 2019.

No complaints are recorded in MACES. The most recent site inspection was conducted on August 7, 2019, and the facility was not in compliance at that time. A violation notice (VN) was issued on August 20, 2019 for the following:

Process Description	Rule/Permit Condition Violated	Comments
EUHMAPLANT	SC III.5	The drum mix burners were not tuned at the start of the 2019 paving season.
	SC III.7	The plant operated outside the hours of 5:00 a.m. to 6:00 p.m. on several occasions.

	SC VI.3 & VI.9	CO emissions were not verified at the start of the 2019 paving season.
EUSILOS	SC III.1	An emission capture system for the top of each storage silo has not been installed.
FGTANKS	SC III.1	A vapor condensation and recovery system has not been installed.

EQUIPMENT

Pyramid Paving is a permanent, counter flow drum mix asphalt plant rated per the permit at 300 tons per hour. The plant consists of: a counter flow, dual-drum system; control house; fabric filter dust collector (baghouse); two HMA silos (EUSILOS) with partially enclosed truck load-out; two asphaltic concrete storage tanks (EUACTANK1 and EUACTANK2); fuel tanks (EUFUELOILTANK, EUFLURRYOILTANK, and propane tank); and aggregate feeders and associated conveyors.

EUHMAPLANT

300 ton per hour counter flow drum hot mix asphalt (HMA) facility including aggregate conveyors, fabric filter dust collector controlled by a fabric dust collector. _

Special condition (SC) I.4 restricts CO emissions to 25 ton per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. SC VI.8 is the associated monitoring and recordkeeping requirement that requires the plant to maintain monthly and 12-month rolling time period emission calculation records of all criteria pollutants and TACs listed in the Emission Limit Table for EUHMAPLANT. For the 12-month rolling time period ending August 2020 CO emissions were 9.05 tpy.

The remaining emission limits had testing requirements in previous permits. Testing was required for odor emissions, TACs, PM, CO, SO₂, NO_x, Lead and HAPs if requested by the department. Compliance emission testing was conducted by Network Environmental, Inc. on August 24 – 27, 2004, to comply with conditions under PTI No. 149-03A. At that time, the plant was reported to be operating at approximately 210 tons per hour of HMA and was firing RUO. Pollutants that were tested for included arsenic, lead, manganese, nickel, formaldehyde, acrolein, benzene, ethylbenzene, toluene, xylene, naphthalene, sulfuric acid and PM. The results of the testing appeared to be in compliance with permitted emission limits under the referenced permit and under PTI No. 149-03D. No other requests for testing are of record.

SC II.1. limits the amount of Marathon Petroleum Company slurry oil, or equivalent, used as fuel to 598,276 gallons based on a 12-month rolling time period as determined at the end of each calendar month.

SC II.2. restricts use of fuels used in EUHMAPLANT. Previous inspection reports stated the plant had only used propane since 2017. I verified that through recordkeeping and Ms. Krieger also confirmed. Since the plant only uses propane, SC II.3. does not apply at this time. SC III.4. and Appendix D (Compliance Monitoring Plan for RUO) were not applicable to this inspection either, because the source is not currently using RUO.

SC II.5. limits the asphalt mixture processed in EUHMAPLANT to a maximum of 30 percent RAP material based on a monthly average. SC VI.2 and SC VI.6 are associated monitoring and recordkeeping

conditions that require the plant to monitor the RAP feed rate on a continuous basis, the hours of operation and the average percent of RAP per ton of hot mix asphalt produced containing RAP. The facility is meeting these requirements. I viewed records for the 2020 paving season and the percent of RAP used was below 30 percent.

SC II.6. restricts the plant from processing more than 250,000 tons of HMA paving materials in EUHMAPLANT per 12-month rolling time period as determined at the end of each calendar month. SC VI.10 is the associated monitoring and recordkeeping condition that requires the plant to shall keep, in a satisfactory manner, average daily, monthly and 12-month rolling time period records of the amount of HMA paving materials produced from EUHMAPLANT. For the 2020 paving season the most the plant produced was 139,185 tons and that was in the month of June.

SC II.7 restricts the plant from processing more than 300 tons of HMA paving materials in EUHMAPLANT per hour based on a daily average, which shall be determined by dividing the daily HMA production by the daily operating hours. For the 2020 paving season the most the plant produced was 194.37 tons per hour and that was in the month of June.

SC III.1. restricts operation of EUHMAPLANT unless a Fugitive Dust Control Plan for EUYARD is implemented and maintained. At the time of the inspection the roadways were wet. Mr. Chaffin said they will use the front loader to put water on it when the weather is occasionally dry but will order chloride during extended periods of dry weather. The plant had chloride delivered on June 24, 2020.

SC III.2. restricts operation of EUHMAPLANT unless the Preventative Maintenance Program is implemented and maintained. The plant provided documentation of maintenance performed prior to the 2020 paving season. The blacklight test was performed on April 20, 2020 and 660 out of 963 bags were changed on the fabric filter. Calibration of the magnehelic for the baghouse and truck scale were also performed during the spring maintenance.

The Preventative Maintenance Program also includes the monitoring and recordkeeping required in VI.3. and associated recordkeeping specified in VI.9. SC VI.3 requires the plant to monitor, with a handheld CO monitor, the CO emissions from EUHMAPLANT and the production data associated with the time the emissions data were collected. Data collected by this method shall be used for determining proper burner operation. During the inspection Ms. Chaffin said they perform CO readings every two weeks as a proactive measure. The violation notice issued August 20, 2019 cited these conditions as non-compliant. CO emissions averaged 220 ppm and the vendor that tunes the burner told plant staff if the average was below 300 ppm then the burner did not need adjusting. The burner was tuned at the beginning of the season on April 23, 2020. SC III.5 also requires the plant to operate the burner efficiently. At the time of the inspection the facility had been performing this monitoring accordingly and the facility was in compliance with the requirements of these permit conditions.

SC III.7. limits operation of EUHMAPLANT to between April 15 and November 30. The plant shuts down by November 15th and did not start operation until April 20th this year.

SC IV.1 restricts operation of EUHMAPLANT unless the fabric filter dust collector is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the fabric filter dust collector requires a pressure drop range between 3 and 6 inches of water column. The plant was not in operation at the time of the inspection therefore, I could not verify this. However, I did request records for the 2020 paving season and the pressure differential was generally at -2.2 inches of water column.

SC II.4. and SC III.6. (EUHMAPLANT) prohibit the permittee from using any asbestos tailings or waste materials containing asbestos. Facility staff indicated no asbestos materials are used in the production of HMA.

SC VI.2 and VI.7. (EUHMAPLANT) require monitoring of the virgin aggregate feed rate and the RAP feed rate on a continuous basis with intermittent daily records. Feed rates and operational parameters (such as mix temperature) are monitored continuously on the control screen, with summary printouts at whatever interval is desired by the operator. Records are also kept for all changes in production/mix

recipe, and a summary printout is made at the end of each day. The records are provided daily to the main office in Bay City. A summary print-out was provided at the time of the inspection, as well as recent mix recipes. These records may be found in the district file.

SC IX.1 allows the plant to relocate provided it follows the requirements in this condition and restricts the plant from operating at the geographical site for 24 consecutive months or less. The plant does not relocate. In fact, to correct the electrical issue associated with loadout control on the silos the facility was wired in such a way that it cannot relocate. The permit condition appears to be an error. Below is the historical information for permit modifications throughout the years. It appears that the plant was initially permitted as a portable plant and during revision 149-03C the portable condition was removed. A subsequent PTI revision must have pulled from an old PTI and inadvertently stuck this condition back in. Field staff conferenced with the permit section supervisor and the path forward is for the facility to ask for the correction. The plant is sending a PTI application requesting the removal of the condition.

Permit History

- PTI 149-03 and 149-03A were for a portable plant. PTI 149-03A, condition 1.27 restricted operation at the site after November 19, 2004.
- AQD received a letter February 11, 2005 applying for a permanent permit. PTI 149-03B was issued 5-4-2005, without portable plant restrictions. Attached is the fact sheet from the public comment period for PTI 149-03B.
- PTI 149-03C did not have the portable restrictions. Issued June 2010. This PTI was issued to incorporate use of an oil slurry from Marathon Petroleum as a fuel source.
- PTI 149-03D includes portable restrictions. Issued July 2011. Eval form says the reason for permitting is applicant requested to use Recycled Used Oil (RUO) as an alternative fuel
- PTI 149-03E includes the portable restrictions. Temporary PTI issued to allow facility to operate from May 30, 2018-August 1, 2018 for 24 hrs/day. 8-2-2020 PTI 149-03D becomes effective again.
- PTI 149-03F includes the portable restrictions. Issued to removed operating hours between 5 a.m. and 6:00 p.m.

40 CFR Part 60, Subpart I

SC VI.4. (EUHMAPLANT) requires monitoring emissions and operating information in accordance with 40 CFR Part 60, Subparts A and I for the plant. Subpart I requires PM testing pursuant to Subpart A, and limits the opacity from the stack to 20%. The source conducted PM testing in 2004, and there are Method 9 certified staff at the plant.

EUYARD

This emission unit includes sources of fugitive dust including: plant roadways, plant yard, material storage piles, material handling operations (excluding cold feed aggregate bins).

SC III.1. requires the Fugitive Dust Control Plan (Appendix A) be implemented and maintained. The roads were paved with 10 mph signs posted throughout the site. Roads closer to the plant have been covered with pea-gravel or sands resulting from heavy rains, truck traffic and elevation differences onsite. Fugitive dust did not appear to be an issue at the time of the inspection. Dust control activities are marked on the Weekly Plant Operating Report. At the time of the inspection the roadways were wet. Mr. Chaffin said they will use the front loader to put water on it when the weather is occasionally dry but will order chloride during extended periods of dry weather. The plant had chloride delivered on June 24, 2020.

SC VI.1., VI.2. and VII.1. (EUYARD) require fugitive emission records be maintained and calculated using AP-42 or MAERS emission factors, and annually reported to MAERS. The source reports to MAERS in a timely manner every year, and reports fugitive emissions from EUYARD.

EUSILOS

This emission unit consists of Hot Mix Asphalt (HMA) paving material product storage silos.

On August 7, 2019 AQD staff sent a violation notice citing special condition III.1 of EUSILOS. SC III.1 requires EUSILOS to operate with emission capture system for the top of each storage silo. At the time of the previous inspection this was not operating. The plant had experienced electrical issues with the fans connected to this capture system. The intent of this inspection was to determine if the plant had resolved this violation. As part of the records request, I received an invoice of labor and material related to the electrical work performed to fix the fans on the capture system. The facility resolved this non-compliant issue on September 25, 2019 and maintains a compliance status with it.

SC III.2 restricts operation of EUSILOS unless all the silo load-out activities occur in an area, which is permanently enclosed except for truck entrance and exit points. Emissions collected from the truck load-out area shall be vented into the burning zone of EUHMAPLANT or controlled by equivalent means. The plant was not in operation at the time of the inspection so AQD staff could not verify the operation of the load out control. However, in subsequent conversations with Mr. Bruce Weiss he stated the plant did have load out control which was connected to the top of silo control.

FGTANKS

This flexible group contains the following emission units: EUACTANK1, EUACTANK2, EUFUELOILTANK, EUSLURRYOILTANK.

SC III.1 restricts operation of FGTANKS unless the vapor condensation and recovery system is installed, maintained, and operated in a satisfactory manner. On August 7, 2019 AQD staff sent a violation notice citing this condition as non-compliant. The intent of this inspection was to determine if the plant had resolved this violation. During the inspection AQD staff viewed the vapor condensation and recovery system for each of the tanks. Mr. Chaffin showed AQD staff a cartridge system that had been removed because it was spent. AQD staff asked if the cartridges could be cleaned, but they are landfilled. At the time of the inspection the facility was in compliance with this condition and the violation from August 2019 has been resolved.

FGFACILITY

SC I.1 restricts HAP aggregated HAP emissions from the facility to less than 22.5 tpy. SC VI.2 is the associated monitoring and recordkeeping condition that requires the facility to keep in a satisfactory manner, the monthly and 12-month rolling time period aggregate HAP emission calculation records for FGFACILITY. For the 12-month rolling time period ending August 2020 aggregated HAPs were less than 1 tpy.

Previous versions of this PTI had an individual HAP limit as well. It is unclear why it was removed except that the facility may be a true minor source of HAPs and the individual limit was not required.

COMPLIANCE DETERMINATION

At the time of the inspection, the source was in compliance with PTI 149-03F.

NAME 

DATE 10/21/2020

SUPERVISOR 