

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

A253435426

FACILITY: Michigan Paving and Materials- Woodland		SRN / ID: A2534
LOCATION: 3566 Millcreek Ave., COMSTOCK PARK		DISTRICT: Grand Rapids
CITY: COMSTOCK PARK		COUNTY: KENT
CONTACT: Michael Gartrell, Plant Manager		ACTIVITY DATE: 07/07/2016
STAFF: Kaitlyn DeVries	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: The purpose of this inspection was to determine compliance with PTI No. 990-90B and all other applicable Air Quality Rules and Regulations.		
RESOLVED COMPLAINTS:		

On Thursday July 7, 2016 AQD Staff Kaitlyn DeVries (KD) and Chris Robinson (CR) conducted an unannounced, scheduled inspection of Michigan Paving and Materials – Woodland Paving Division (MP) located at 3566 Millcreek Ave, Comstock Park, Michigan. The purpose of the inspection was to determine compliance with PTI No. 990-90B and all other applicable Air Quality Rules and Regulations.

Staff arrived on site at approximately 9:45 am. Conditions were sunny, and dry. Opacity and odor observations were made from prior to arriving on site. None were noted. Staff met with Mr. Michael Gartrell, Plant Manager. KD presented Mr. Gartrell with the Environmental Rights and Responsibilities pamphlet, which was briefly discussed. KD asked about any changes to the plant, or any upcoming changes and Mr. Gartrell mentioned that Woodland wanted to add an additional silo this fall, in preparation for next year's paving season. The addition of the new silo would be allowed, since it is exempt under Rule 289(c). KD relayed this information to Mr. Gartrell in a later e-mail.

After the opening meeting, staff proceeded to the control tower to meet with Mr. Josh Nellis, Operator. Mr. Nellis provided staff with most of the pertinent information regarding day to day plant operations and what the plant was running at that time. Once we had our information from the control tower staff proceeded to the separate viewing area for load out. Staff did not see any fugitive emissions coming from the load out operations. Lastly, staff proceeded through the rest of the facility. Staff left the facility at approximately 11:15 am.

Facility Description

MP is a parallel-flow inclined drum hot mix asphalt plant. The facility operates from May through October, but can vary slightly based on weather.

Regulatory Analysis

MP is a Synthetic Minor Opt-Out source for Hazardous Air Pollutants (HAPs), and currently only has one (1) permit, PTI No. 990-90B. MP is also subject to the New Source Performance Standards for Hot Mix Asphalt Facilities (40 CFR Part 60 Subpart I). Many of the requirements of Subpart I are written into the permit, and will be evaluated as such.

Compliance Evaluation

EUHMAPLANT

This emission unit includes the hot mix asphalt (HMA) facility including the aggregate conveyors, the parallel flow drum dryer/mixer and the fabric filter dust collector. Records indicate that the plant has only been using natural gas as the fuel source for the past seven (7) years, thus no specifications for the recycled fuel oil or fuel oil was collected. Additionally, since no recycled oil (RUO) was used, compliance with the Compliance Monitoring Plan for RUO located in Appendix C of PTI No. 990-90B was not evaluated. MP also does not process any asbestos or asbestos containing materials.

At the time of the inspection, MP was running at approximately 382 – 400 tons per hour, which is below their limit of 650 tons per hour; they were also producing approximately 1988 tons per day, and may go up as high as 4500 tons, which is an extremely large production day. Per the records, on the day of the inspection, MP produced 4,193 tons of HMA. Based on the records the 12-month rolling average as of June 2016 is 344,500, which is below their allowed 750,000 ton limit. Records for production are attached. The mix that was running at the time of the inspection was 40% RAP, and their monthly average as of June 2016 is 34.4%, which is below

the allowable 50%. MP is also tracking daily RAP and daily virgin feed rates, and product temperature. KD was able to see where the data was hand recorded for each of the mixes, and then is transferred into the electronic records. KD reviewed several of the daily production sheets on site, and they appeared to be acceptable.

According to Mr. Nellis, MP had fine-tuned the burners for proper operation at the beginning of the paving season. He also showed KD that he can fine tune the burners from the control tower if and when needed. The drum mix temperature and the drum exhaust gas temperature are regularly recorded. At the time of the inspection, the drum mix temperature was 316°F, and the drum mix exhaust temperature was 320°F. Records of the temperature are attached, and are adequate. Carbon Monoxide (CO) monitor data was readily available for AQD staff. The most recent CO monitoring was done on 5/5/2016 (the start of the paving season), and appeared to have been properly done with eight (8) readings over a time period of approximately 40 minutes. The highest CO reading was 123 ppm.

MP has most recently conducted stack testing in 2008 to verify the emission rates of the Toxic Air Contaminants (TAC's) listed in the table below.

Pollutant	Limit	Time Period
PM	0.04 gf/dscf	Test Protocol
PM	0.04 lb./ton	Test Protocol
CO	0.01 lb./ton	1 Hour
CO	78.75 tpy	12-month rolling average ¹
SO ₂	0.14 lb./ton	1 Hour
NO _x	0.12 lb./ton	1 Hour
Lead	1.5x10 ⁻⁵ lb./ton	Test Protocol
Benzene	0.001 lb./ton	Test Protocol
Toluene	0.006 lb./ton	Test Protocol
Ethylbenzene	0.005 lb./ton	Test Protocol
Xylene	0.001 lb./ton	Test Protocol
Naphthalene	0.001 lb./ton	Test Protocol
Formaldehyde	0.01 lb./ton	Test Protocol
Acrolein	0.0008 lb./ton	Test Protocol
Arsenic	1.5x10 ⁻⁶ lb./ton	Test Protocol
Nickel	1.5x10 ⁻⁴ lb./ton	Test Protocol
H ₂ SO ₄	0.015 lb./ton	Test Protocol
Manganese	5.0x 10 ⁻⁵ lb./ton	Test Protocol
Hydrogen Chloride	0.006 lb./ton	Test Protocol

¹ As of June 2016 the CO emissions were 22.4 tpy; all emission tracking is appropriate.

The emissions are calculated using natural gas fuel only, AP-42 emission factors and an annual limit based off of 750,000 tons HMA paving material produced. Records are attached detailing the emissions of the pollutants listed above, including hydrogen chloride and sulfur dioxide with the control efficiencies applied. These emissions appear to be consistent with what was reported in MAERS for 2015.

All records and operating parameters appear to meet the requirements specified in the federal standards of performance for new stationary sources as specified by 40 CFR Part 60 Subpart A and I.

The dust collector appeared to be properly installed, maintained and operated. Mr. Nellis explained that MP had replaced all 989 bags in 2015, prior to this paving season. He also indicated that they had more than 100 bags available on site, if needed. MP is monitoring and recording the pressure drop across the baghouse as required, and the pressure drop was 4 inches of water at the time of the inspection. This is between the required 2 and 10 inches of water. Through speaking with Mr. Nellis, MP did a lot of maintenance after the 2015 paving season, but was keeping records of all maintenance since then and prior to then. MP did the required black light testing at the start of the paving season. The maintenance records can be found attached to this report and it appears as if the preventative maintenance program for the fabric filter dust collector found in Appendix B of PTI No. 990-90B is being implemented. All start-up and shut-downs are being tracked in accordance with Appendix D to minimize emissions. Additionally, the stack dimensions were not explicitly measured, but there appeared to be no changes.

EUYARD and Appendix A – Fugitive Dust Plan

Upon arrival at the facility KD noted that the ground appeared to have been recently watered. Mr. Nellis explained that they water regularly, typically two (2) times per day, but have increased to three (3) times when necessary. Conditions had recently been very dry, thus they were watering the yard three (3) times per day. Thus, the fugitive dust control plan appears to be properly implanted and is minimizing fugitive emission from the yard. Based on the records, and the 2015 MAERS report, it appears as of the PM emissions from the yard are also properly being tracked.

EUACTANKS

MP has one (1) vertical tank and five (5) horizontal tanks for this emission unit. The tanks appeared to be properly operating with an adequate vapor condensation and recovery system installed.

EUSILOS

The silos appeared to be functioning properly with an appropriate emission capture system for each of the silos. Mr. Gartrell explained where the new silo would be located in respect to the existing silos, and that it would be hooked up to the existing capture system.

FGFACILITY

The plant has facility wide individual and aggregate HAP emission limits of 8.9 tpy and 22.4 tpy, respectively. As of June 2016 the aggregate HAP emissions were 0.731 tons, and the highest individual HAP, Formaldehyde, had emissions of 0.534 tons.

Compliance Determination

Based on the observations made during the inspection and a subsequent review of the records, it appears as if Michigan Paving and Materials – Woodland Paving Division is in Compliance with PTI No. 990-90B and all other applicable Air Quality Rules and Regulations.

NAME

Kaitlyn DeVin

DATE

7/26/2016

SUPERVISOR

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