

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

B299267687

FACILITY: Michigan Paving & Materials Co. Kalamazoo Asphalt		SRN / ID: B2992
LOCATION: 2000 GLENDENNING, KALAMAZOO		DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: Bruce Johnson , Plant Manager		ACTIVITY DATE: 05/09/2023
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced scheduled inspection		
RESOLVED COMPLAINTS:		

This was an unannounced, scheduled inspection. Staff, Monica Brothers, arrived on-site at about 9:00am. Upon arrival, the plant was running and only steam was seen coming from the asphalt-making equipment. I first went to the control room, where I met with Bruce Johnson, the Plant Operator. I introduced myself and briefly discussed the inspection process and what records I would like to see. Bruce showed me some records that were kept in a couple of spreadsheets in their computer system. After the inspection, I contacted Sue Hanf, Environmental Engineer for Michigan Paving and Materials to obtain a copy of these records for a more thorough review. After discussing their recordkeeping, we took a tour of the facility.

Michigan Paving and Materials is a hot-mix asphalt facility. They are an Opt-Out facility for HAPs and are currently operating under PTI# 217-91E. They have about four employees who run the asphalt operations, one employee in the scale house, and four more employees in the lab. They run from late April to around Thanksgiving each year, and their shifts vary depending on asphalt demand. They typically run one shift, six days per week, with occasional nights and Sundays added when needed. They do not have any emergency generators or parts washers at the facility. They do have a hot oil-boiler that circulates to the AC tanks. The facility submitted an exemption for warm-mix asphalt equipment in March 2014, but they have decided against running this process.

**EUHMAPLANT and FGFACILITY:**

The plant uses only natural gas and has not used recycled used oil (RUO) since 2009. They are keeping track of the flash-point, specific gravity, btu/lb, halogen content, and sulfur content of their natural gas, and it is under all of the required limits in their PTI. The sulfur content is 0.22% by weight, and the limit is 1.5%. They do not take in any material that would have asbestos. They are permitted for 650 tons/hour of product, on a 24-hour rolling timescale, and their records show that they are consistently under that limit. They usually run at about 300 tons/hour, and the highest I saw in their records for 2022 was 358 tons/hour on September 30th. They also have a limit of 895,000 tons/year of HMA produced on a 12-month rolling timescale, and the highest for 2022 was only 393,549 tons/year in October.

They are doing daily pressure drop readings for the baghouse, and they are consistently between 4-5 inches of water. During the inspection, the pressure drop on the baghouse was 3.4 inches of water. This baghouse pressure drop is required to be between 2-10 inches of water, so they seem to be maintaining the unit within this acceptable range. They are limited to using up to 50% reclaimed asphalt pavement (RAP), and their records show that they are under this limit, with 40% being their highest for 2021 and 2022. They continuously monitor the virgin aggregate and RAP feed rate. They have records of their CO monitoring, which should occur upon start-up of

each paving season and after every 500 hours of operation. They are doing at least 8 readings per monitoring session. Their records show that their CO readings have been under the required 500 ppm. They are conducting daily opacity readings on the baghouse and are logging baghouse maintenance activities. They are also keeping a log of significant maintenance and daily inspections at the plant.

They are keeping records of their natural gas usage, the amount of HMA containing RAP they produce, and the average percent of RAP/ton of HMA on a monthly basis. They are keeping the required daily records of the virgin aggregate feed rate, the RAP feed rate, and the asphalt product temperature.

They are also keeping records 12-month rolling records and monthly records of all criteria pollutants and HAPs emitted at the facility. They are limited to 89.9 tons/year each of CO and SO<sub>2</sub>, and 9.0 tons/year for each individual HAP and 22.5 tons/year for aggregate HAPs. Their records show that they are under these limits.

During the inspection, I measured the EUHMAPLANT stack height with a rangefinder. The rangefinder reading was 131 feet, which is above the required minimum stack height of 120 feet above ground.

#### EUYARD:

During the facility tour, the roadways and yard areas seemed to be pretty clean. The speed limits posted for vehicles is 8 mph, and their permit requires it to be 10 mph or less. They are keeping records of their fugitive dust control activities and are submitting fugitive dust emissions calculations to MAERS each year.

#### EUACTANKS:

In October 2021, the facility submitted notification that they would be replacing their four AC tanks with six new ones during the winter 2021/2022 shutdown, under the Rule 284(2)(i) exemption. This project has since been completed and included a new hot oil boiler and expansion tank. Each of the six tanks has a capacity of 35,000 gallons. The tanks are kept at about 300°F and share a vapor condensation and recovery system. They get a few different grades of AC from refineries, which are used in the many different recipes of asphalt.

#### EUSILOS:

The emissions from the silos and the truck load-out area go through a blue smoke filter, which is a 2-stage filter that filters particulate and condenses the gases. The facility has the option to route these emissions back to the drum, but they have stated in the past that this has a negative effect on the combustion air, so they have always used the blue smoke filter instead. Bruce said that they replace these filters once every year. During the inspection, these filters seemed to be capturing particulate from truck load-out effectively with very little opacity seen while trucks were being loaded with material.

#### APPENDIX A: FUGITIVE DUST CONTROL PLAN

They are keeping track of their fugitive dust control activities and are watering at least two times per month. The speed limits are 8 mph, which is below the required 10mph in their permit.

During the inspection, the unpaved roadways seemed to be below the limit of 5% opacity, and the trucks that I observed coming and going from the facility were covered.

**APPENDIX B: MAINTENANCE PROGRAM FOR THE FABRIC FILTER DUST COLLECTOR**

They are recording their daily pressure drop checks, and they are consistently above the required 2.0 inches of water. Usually, it is between 4-5 inches of water. The baghouse has a high temperature alarm that is set at 400°F and will begin shutting down the plant if the issue is not quickly resolved. They have records of their blacklight tests, which are conducted at least once per paving season. They also have the required fabric filter inspection records and records of maintenance activities performed on the baghouse. During the inspection, Bruce showed me that they are keeping at least 15 filter bags, 5 lbs of blacklight powder, and two tubes of caulk on hand, as required by their permit.

**APPENDIX C: START-UP, SHUT-DOWN, MALFUNCTION ABATEMENT PLAN**

They have records of their daily inspections, which are conducted each morning before start-up, and they have documentation of the preventative maintenance performed during the daily inspections, as well as during the annual inspections during shutdown.

The facility seemed to be in compliance at the time of this inspection.

NAME *Marcus Vant*

DATE *6/15/23*

SUPERVISOR *RIL 6/15/23*