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

B159730241

FACILITY: Ace-Saginaw Paving Co. Plant 3		**SRN / ID:** B1597
LOCATION: 4190 JIMBO DR, BURTON		**DISTRICT:** Lansing
CITY: BURTON		**COUNTY:** GENESEE
CONTACT: Matt Hugo , Plant operator (A-3 Burton)		**ACTIVITY DATE:** 07/15/2015
STAFF: Daniel McGeen	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Partial Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE): 1.) scheduled inspection, and 2.) review of records and operational logs.		
RESOLVED COMPLAINTS:		

On 7/15/2015, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted a scheduled inspection of Ace-Saginaw Paving Company's Plant 3, in Burton, and reviewed facility records and operational logs. These were done as Partial Compliance Evaluation (PCE) activities, part of a Full Compliance Evaluation (FCE).

Environmental contact:

Matt Hugo, plant operator (A3-Burton); 810-742-2420; mhugo@edwclevy.net

Facility description:

This facility is a stationary Hot Mix Asphalt (HMA) plant, rated at 400 tons per hour (TPH). It utilizes a dual drum system, as opposed to a single drum. Virgin aggregate is dried in the first drum by a burner, and then transferred to the second drum, which has no burner. In the second drum, Recycled Asphalt Pavement (RAP) and liquid asphalt cement (AC) are mixed with the heated aggregate. This avoids the burner flame contacting the RAP or the liquid AC, and prevents the formation of blue smoke. A baghouse controls particulate emissions. A drag slat conveyor routes the asphalt product to silos for storage, until it is loaded into trucks. The silos and loadout are uncontrolled. The fuel for the drum dryer can be Recycled Used Oil (RUO), No. 1 through 6 fuel oils, natural gas, or liquified petroleum gas, under Permit to Install (PTI) No. 128-73E. RAP content of the HMA paving mix is limited to 50%.

Emission Units at Ace Asphalt Plant 3, SRN B1597

Emission unit ID	Emission Unit Description	Permit to Install No.	Compliance Status
EUHMAPLANT	Hot Mix Asphalt (HMA) facility, including: Aggregate conveyors 400 tons per hour (TPH) Dillman dual drum dryer/mixer Fabric filter dust collector (baghouse)	128-73E	Compliance
EUYARD	Fugitive dust sources including: Plant roadways Plant yard Material storage piles Material handling operations (excluding cold feed aggregate bins)	128-73E	Compliance
EUACTANKS	Liquid asphalt cement (AC) storage tanks	128-73E	Compliance
EUSILOS	HMA paving material product storage silos	128-73E	Compliance

Regulatory applicability:

PTI128-73E is a synthetic minor permit, which contains restrictions so that the Potential to Emit does not exceed major source levels. Therefore, this facility is not a major source for the criteria pollutants carbon monoxide, nitrogen oxides, sulfur dioxides, volatile organic compounds, lead, particulate matter smaller than 10 microns (PM-10), and particulate matter smaller than 2.5 microns (PM2.5), nor is it a major source for hazardous air pollutants (HAPs).

This plant is not subject to the NSPS, 40 CFR Part 60, Subpart I - Standards of Performance for Hot Mix Asphalt Facilities. This is because the cost of their 1997 retrofit was below the threshold of 50% of the

cost of building a comparable new facility. The federal definition of an HMA facility includes dryers, systems for handling, screening, storing, and weighing hot aggregate, systems for loading, transferring, and storing mineral filler, systems for mixing HMA, and the loading, transfer, and storage systems associated with emissions control systems. Going by this definition, the cost of the retrofit was $245,000, and the cost of a comparable new plant in 1997 would have been $505,000. If the slat conveyors, silos, truck scales, and a cold feed system were included, the 1997 retrofit would have been $454,000, whereas the cost of a comparable new plant in 1997 would have been $1,800,000.

Fee status:

The facility is not considered fee subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for HAPs, and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility is required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS), which they have done in a timely and complete fashion, each year.

Location:

The facility is located in an industrial park. However, there may be one residential property, combined with a business, about 1,000 feet to the east of the HMA plant. Otherwise, the nearest residences are about 1,600 feet to the south southeast of the plant.

Arrival:

I checked for odors downwind, prior to arrival at the site. At 9:57 AM, weather conditions were mostly sunny, humid from heavy rains the previous couple days, and 63 degrees F, with winds out of the northeast, at 5-10 miles per hour. On Dort Highway, I detected a distinct and definite asphaltic odor, about 1,000 feet to the southwest of the HMA plant's location. The distinct and definite rating corresponds to a level 2 on the 0 to 5 odor scale used by AQD. I determined this odor was not sufficient to cause unreasonable interference with the comfortable enjoyment of life and property. Additionally, the area where I detected the asphaltic odor was industrial, rather than residential.

I arrived onsite at 10:10 AM. The plant was running, as evidenced by a detached steam plume. There were no signs of particulate emissions, and no sign of blue smoke. I saw the paved plant roads and yard area being swept by a wet broom sweeper.

I met with Mr. Matt Hugo, plant operator, and Mr. Steve Wheeler, who now spends most of his time working at the Port Huron Ace-Saginaw facility. I provided a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedure. They do not have a boiler onsite, so it was not necessary to provide a copy of the new DEQ boiler Maximum Achievable Control Technology (MACT) card.

Inspection:

It has been an unusually wet summer for Michigan, but I was informed that in spite of the wet weather, they have been running a fair amount. I was told that they have actually produced 20,000 tons more paving material , at present, than at the same point in 2014.

The plant was running. I collected operating data, as follows:

Mix type:	1 HST
Fuel type:	Natural gas and RUO
Production rate, TPH:	262
Total AC (includes AC in RAP), TPH:	15.4
Virgin aggregate, TPH:	175
Recycled Asphalt Paving (RAP), TPH:	77

RAP%:	29.4%
Filler TPH:	0
Dust rem. TPH:	0
Additive TPH:	0
Asphalt pump (liquid AC) TPH:	11.6
Liquid AC grade:	PG 64-22
Virgin AC% of mix:	4.5%
Recycle AC (amount of AC in RAP), TPH:	3.8
Total daily tonnage, so far:	1,128
Mix temperature (2nd drum)	335 degrees F
Virgin agg. temperature (1st drum)	424 degrees F
Liquid AC temperature	402 degrees F
Aggregate moisture content, %:	4.0%
Baghouse pressure drop, " water column (w.c.):	2.4"
Damper pressure drop, " w.c:	0.48-0.60"
Stack temperature	286.7 degrees F

Mr. Steve Wheeler, and an operator, Nate, accompanied me around the plant.

Fugitive emissions check for rotary drums:

Intermittently, there were very tiny puffs of dust visible from the first rotary drum, where aggregate enters the drum dryer, and is heated by the burner, to remove moisture. Mr. Wheeler explained tis puffing is associated with higher than normal moisture content in the aggregate, due to unusually wet weather last month and this month. Mr. Wheeler indicated that they will apply a silicone sealant around this seal, this coming weekend. There is silicone already in place there, he mentioned, but the high temperatures in the drum gradually deteriorate it, over time.

When we were looking towards the sun, there were faint, backlit emissions of fugitive dust from the second drum, the mixing drum. When we stood with the sun at our backs, and looked at the drum, however, no visible emissions could be seen. Mr. Wheeler indicated that they will apply more silicone sealant to this seal as well, this coming weekend.

Fugitive emissions check for virgin aggregate and RAP feed systems:

There were no fugitive emissions from either the virgin aggregate or the RAP feed systems.

Fugitive emissions check for ductwork:

There were no fugitive emissions.

Fugitive emissions check for baghouse:

There were no fugitive emissions from the baghouse. From the baghouse exhaust stack, there was a detached steam plume, but there were no signs of dust or blue smoke.

Fugitive emission check for storage silos:

The storage silos and truck loadout area of the plant were not equipped with an emission capture and control system. Truck loadout and silo control has been a requirement for any new or reconstructed HMA plant in Michigan, since 2000. Ace Asphalt has not undergone reconstruction since that time, nor did it when it was retrofitted, in 1997. Reconstruction is defined as the fixed capital cost of the new components of an affected or previously nonaffected source to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source.

There were minor emissions of steam or blue smoke from the top of the silos, and minor amounts of steam or blue smoke from the loading of trucks. This facility is not a source of air pollution complaints, and I did not feel that these emissions were causing any impacts offsite. Additionally, the surrounding area is industrial.

Fugitive dust check for plant yard and roadways:

As previously noted, a wet broom sweeper was cleaning the paved plant roadways and plant yard as I arrived, this morning.

Fuel use:

I inquired as to the fuel type they were using. Mr. Hugo informed me that they started with natural gas today, then switched to Recycled Used Oil (RUO), once they were up and running. This is the first HMA plant I have seen using RUO, in at least several years. For future inspections, I will come prepared to collect samples of RUO to submit to the DEQ lab for analysis, to check compliance with the limits contained in the PTI, Appendix C.

Carbon monoxide (CO) checks are required for the burner, at the start of each paving season. I was informed that they did conduct the required burner checks before start up, this spring. Following the inspection, Mr. David L. Gohn, Plant Manager, e-mailed me a spreadsheet of CO data from their 6/9/2015 burner tune up. That spreadsheet has not been printed, however, as it consists of 200 pages of data. The data included CO in ppm, % carbon dioxide (CO2), % oxygen (O2), nitrous oxide (NO) in ppm, and nitrogen oxides (NOx) in ppm.

Recordkeeping and operational logs:

While onsite, I requested copies of daily recordkeeping, for 3 recent days on which the plant operated. Mr. Hugo photocopied 3 recent examples (from 7/11, 7/13, and 7/14/2015), which are attached for reference. These were reviewed after the date of the inspection. The requirement sof Special Condition No. 1.22 (a) through (d) of PTI No. 128-73E to keep daily records of virgin aggregate feed rate, RAP feed rate, product temperature, and components of the mix appears to be satisfied.

AQD Lansing District Supervisor Brad Myott audited the facility's MAERS submittal for the 2014 operating year, on 5/18/2015, and entered related comments into the MAERS database.

Conclusion:

I could not find any instances of noncompliance. Ace-Saginaw Plant 3 appears to be in compliance with PTI No. 128-73E, and with the Air Pollution Control Rules. I left the site at 11:16 AM.

NAME _____ DATE 8/19/2015 SUPERVISOR _____