

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

N559740241

FACILITY: Ace-Saginaw Paving Co. - Plant 4		SRN / ID: N5597
LOCATION: 2747 Priemer Road, UBLY		DISTRICT: Saginaw Bay
CITY: UBLY		COUNTY: HURON
CONTACT:		ACTIVITY DATE: 06/14/2017
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: scheduled site inspection for 2017 fiscal year. Exempt silo replacement activities were conducted onsite prior to season start-up. sgl		
RESOLVED COMPLAINTS:		

On Tuesday, June 14, 2017, AQD District Staff arrived onsite to conduct a scheduled-site inspection at 2747 Priemer Road, Ubly, Huron County, Michigan. One portable hot mix asphalt plant, Ace-Saginaw Paving Company Plant No. 4 (ASPC4) (SRN N5597) is associated with the location.

Two Permits to Install (PTI 156-95 and 156-95E) and one General Permit (156-95N) are associated with the SAG4 facility, with the initial permit approved on March 23, 1995. The referenced permit(s) are for a portable, parallel flow drum mix asphalt plant (PTI-156-95E) able to use alternative fuels including natural gas, liquid petroleum gas, No.s 1-6 fuel oils and Recycled Used Oil (RUO). Site inspection activities were conducted with the intent of confirming the operational status and compliance with the referenced general permit. The last site inspection was conducted on July 7, 2015.

Mr. Reino Huovinen (Plant Operator) provided a general overview of operation and practices as well as provided operational information requested as part of the site inspection activities. Mr. Huovinen reported that he had been re-assigned to another ASPC facility, and was only filling in for the normal operator. Copies of the field inspection sheet, aerial photos may be found in the file.

#### FACILITY DESCRIPTION

The ASPC4 facility is located on the north side of Priemer Road, between Jurgess and McAllister Roads, Ubly, Michigan. The facility is located in rural, agricultural area north of Ubly. The location is bounded to the north by another privately owned sand/gravel pit and is bounded to the east, west and south by cropland.

The facility is a portable drum mix asphalt facility. Four Emission Units (EU) (EU001, EUYARD, EUACTANKS and EUSILOS) and one Flexible Group (FG) (FGFACILITY) are identified under General Permit 156-95N. Prior to the 2015 site inspection, the facility has added an RUO settling tank to separate water from the RUO prior to being drawn into the burner.

The facilities normal operating schedule varies according to the job/work schedule and equipment conditions any given day/week. The operating season is ultimately based on orders, but has historically been June through mid-November.

#### REGULATORY

The facility is identified as a synthetic minor, and is subject to 40 CFR Part 60, Subpart I for Hot Mix Asphalt Plants.

#### EQUIPMENT

ASPC4 personnel indicated that the facility has production rate of up to 330 tons per hour. The drum is reported to be a Stansteel Model DM836 parallel flow drum, with a rated capacity of approximately 425 tons per hour. Asphalt vapors generated during the process and loading are collected and reintroduced into the burner. Particulate Matter (PM) generated during process is collected thru both a primary collector (knock out pot) and a secondary collector (bag house) with associated stack. Collected PM materials are reclaimed and used in the asphalt production process. The plant burner is run using RUO which is allowed under SC 1.2.

**Facility Changes** - At the time of the 2015 site inspection, two storage silos, one “hot” elevator with vapor reclaim system and one loading station were associated with the facility. In December 2016, the company notified the District Office of their intent to replace the existing storage silos with relocated silos from their HMA plant in Burton, Michigan under Rule 285 (c) (iii) which exempts permitting for:

*“Changes in a process or process equipment to the extent that such changes do not alter the quality and nature, or increase the quantity, of the emission of the air contaminant beyond the level which has been described in and allowed by an approved permit to install, permit to operate or order of the department.”*

The permitting requirement was presented to both Lansing AQD Permitting staff as well as District Staff. The point of discussion was whether loadout control and permit modification would be required at the time of replacement. Permit staff indicated that since Per a September 2016 policy, April 1992 was when the TBACT came into effect for the truck loadout controls. Silos permitted after that date would have been required to have controls at the top of the silos as well as at the bottom loadout. Permit Staff confirmed that if the silos to be relocated were permitted prior to 1992 then they would not need to add the truck loadout controls because they are considered existing. Based on available information, the silos were manufactured in 1987 and installed at another plant prior to 1992.

The replacement silos have the same silo loadout system with capture at the top of the silos. The increase in the number of silos (three vs two) was reported by the company to not reflect an increase of storage capacity, as production at the plant is not sufficient enough to warrant concurrent filling of the three silos. It was also indicated by the company that the anticipated life of the HMA plant was 5 years, and that the facility may not be operating after that time.

**COMPLIANCE ISSUES**

The most recent letter of Violation (LOV)/Notice of Violation (NV) for the facility was dated September 26, 2012, for record keeping violations attributed to changes in database systems being made by the company. No recordkeeping issues were identified during the 2015 site inspection.

No complaints are of record for the facility since the 2015 site inspection.

Annual emission reports are submitted by the facility as part of the MAERS program. Records indicate that the reports are submitted on a timely basis.

MAERS Reporting Year	Submittal Date	Reported Production (tons per year)	Reported Fuel
2016	03/14/2017	111,948	RUO
2015	03/04/2016	106,569	RUO

**COMPLIANCE EVALUATION**

**Operational Status** – Upon arrival the ASPC4 facility was noted to be operating, with trucks being loaded from the two of the three silos. Asphalt transport trucks awaiting their turn to load stage along Priemer Road, and enter through a separate entrance/drive along the western edge of the facility. ASPC4 personnel onsite included the plant operator and the operator of the front end loader. The one front end loader transported materials (including RAP) from various material stockpiles onsite to aggregate hoppers in what appeared to be a continuous process for the duration of the inspection.

At the time of the June 14, 2017, site visit, the facility was operating at the following production rates:

Time	Mix Type	Virgin Aggregate	RAP Feed	HMA Temp	Diff-erential Pressure

		Production Rate (tph)	feed Rate (tph)	Rate (tph)	Asphaltic Liquid Feed Rate (tph)		
9:25	1HC13A	251	186	55	14	293	3.5
11:01	4E1	257	190	53	15.3	287	3.5

The production rate at the time of the inspection was below the maximum permitted capacity of 425 tons per hour (based on a daily average)(SC 1.7).

The corporate office reported that the facility had been started up for the paving season on April 28, 2017. Pre-season maintenance activities for both 2016 and 2017 calendar years were initiated in April of that year.

**Material Usage Rates** – Production at the facility is order driven. Production to date for the season was reported to be approximately 24,910 tons. SC 1.6 limits production to no more than 750,000 tons per 12-month rolling time period. Records submitted as part of the MAERS program and in records reviewed as part of the compliance evaluation showed the facility well under the referenced limits.

Virgin aggregate feed rates, RAP feed rates, asphaltic liquid feed rates, HMA temperatures, differential pressures and other operational and material use information/data is monitored continuously at the facility (SC 1.16), and a daily report is generated for submittal. Daily usage reports indicating the various mix codes, material components of the produced mix by the ton, and total tons produced are submitted to the main office.

RAP usage is limited by permit to a maximum monthly average of 50% (SC 1.5). RAP use is reported to vary based on mix in production, and is order specific. At the time of the site inspection, the mix was running 22% RAP. Records reviewed also indicated that the average RAP content was 22% for the day of the site visit (June 14, 2017) and an average for the season at 22.27%

The plant operator reported that no asbestos shingles or other asbestos containing materials were used in their production, which meets requirements of SC 1.4.

Fuel (RUO) consumption (SC 1.2) is reported daily by onsite staff in compliance with permit conditions.

**Operational Parameters** – At the time of the inspection, the ASPC4 facility was operating at approximately 251 tons per hour, and most are presented above.

General Permit 156-95N requires that the plant shall not operate unless the fabric filter (SC 1.12), emission capture system for the top of each storage silo (SC 4.1) and vapor condensation and recovery system for the above ground tanks (SC 3.1) are installed and operating properly. As previously indicated, the SAG4 facility PM control consists of both a primary collector and a bag house. SC 1.12 also requires that the pressure difference/drop across the bag house must be between 2 and 10-inches of water. The pressure difference reported at the time of the inspections was 3.5 inches of water, within the permit requirements.

With respect to the emission capture system for each of the storage silos (SC 4.1) and the vapor condensation and recovery system for the above ground tanks (SC 3.1) confirmation of installation of both systems was obtained through the main office.

**Emission Point** – Upon arrival at intersection of Jurgess and Priemer Roads a plume was noted to be coming from the stack of the SAG4 asphalt plant. The stack, which is associated with the bag house for the facility is estimated to be approximately 65-70 feet tall, and approximately 48-inches in diameter (meets SC 1.26). The plume was detached, and was determined to be the result of moisture.

VE observations were unable to be completed based on the location of the sun, and wind conditions. Sporadic Visual Emissions (VE) of 10% or less were noted for the bag house stack, the conveyor drop

point at the top of the silos and at the asphalt loading station. The emissions dissipated quickly and only a slight asphalt odor was occasionally noted.

#### Monitoring and Testing –

Verification and quantification of odor emissions (SC 1.13), emission rates for HAPs (SC 1.14) and CO (SC 1.15) may be required for EU001, District Files contain a copy of Source Emissions Test results for PM emissions for the facility for testing conducted dated October 20, 2005. Based on a review of the report and subsequent correspondence it appears that the facility emissions exceeded allowable emission limits under the permit, and that a request for adjusted emission limits was made and approved on February 9, 2006. No records of requests for additional testing were found.

CO emissions are reported to be monitored with a hand held device (SC 1.17) prior to the start up of each paving season, then every 500 hours or after a malfunction (whichever comes first) (SC 1.10). Records available at the time of the inspection indicated that the most recent event had occurred on June 7, 2017, and that prior to the season startup, were conducted on April 28, 2017 (partial data set) and then again on May 3, 2017. Five full CO data sets had been collected prior to the June 14, 2017 site inspection. Staff reported that the information was used to fine tune the burners (SC 1.10)

#### Prevention and Maintenance Plans –

General Permit 156-9N requires implementation of a fugitive emissions control plan prior to operating the plant (SC 1.9, SC 2.1). Components of the referenced plan (Appendix A of the referenced permit) include: site maintenance, management of on-site roadways, onsite management of haul vehicles, management of front-end loader operations, fugitive emissions from dust collection/process equipment and record keeping.

With reference to fugitive dust management activities, ASPC4 staff reported that dust control was principally by application of water to roadways and stockpiles with application of calcium chloride when appropriate.

Speed limits were clearly posted. HMA haul vehicles traveled on asphalt paved roadways. Roadways were clean, and no spillage was noted. All out-going trucks were noted to cover their loads prior to leaving the site, and a sign stating the requirement was visible.

No overfilling of aggregate feed hoppers was noted during the site inspection. ASPC4 staff reported that activities required under the referenced fugitive dust plan were implemented, and that activities were documented on the daily logs submitted to the corporate office.

Records are required under Appendix A of the sites general permit, to be kept and made available upon request until the end of the paving season, and maintained in the operations log book. No formal "operations log book" is kept however daily records are kept onsite that include a summary of any applicable activities, and based on the limited period of time the records must be kept (i.e. one paving season), the onsite files may meet the intent of the requirement.

The permittee is required by SC 1.20 to conduct all necessary maintenance and make all necessary attempts to keep the drum mixer/burner and fabric filter dust collector components of the HMA Plant baghouse (EU001) maintained and operating properly at all times. A preventative maintenance plan for the fabric filter dust collector is outlined in Appendix B of the General permit. Activities outlined in the referenced appendix outline requirements for fabric filter dust collector operating pressures, alarm systems, handling and storage of fabric filter dust, piping and seals maintenance, black light inspections, filter bag inventories, bound log book requirements and actions required in the case of visible emissions. ASPC4 staff indicated that there was an alarm system, and control equipment maintenance schedule, with completed activities reported on the daily log sheet for the facility. Daily log sheets also record operating pressure differences for the bag house.

The last bag house inspection date was reported to be April 24, 2017. A total of 700 bags had been purchased the previous fall for the 2017 season's baghouse maintenance activities. PM collected as a result of bag house operation is reclaimed and returned to the mix. (GC 12) However, there is no formal bound log book or other records kept outlining maintenance, inspection and/or repair activities as well as observations of visual emissions at the stack discharge point as well as a description of the response to the observed visible emission.

The efficiency of the burner is maintained by fine tuning the burner to control CO emissions (SC 1.10). The required activities were reported to have been conducted at the startup of the paving season. (Refer to monitoring and testing section of report) Other burner and drum maintenance activities are conducted as part of their general maintenance program, and are conducted generally in the off season.

SC 1.8 requires a Compliance Monitoring Plan (CMP) for RUO, which is outlined in Appendix C of the General Permit. The CMP outlines the required activities for use of RUO as fuel. Analytical reports for RUO delivered to the site were available for review (SC 1.8) onsite for the present operational season. The plant operator reported that a report was received for every RUO delivery. The laboratory analyticals for deliveries in the 2016 and 2017 season appeared to confirm that the concentrations of SC 1.3 contaminants reported were within the standards permitted.

Documentation of split samples of RUO submitted to an independent laboratory, were requested from the main office as part of a supplemental records search. The plant operator showed the inspector RUO grab samples that he had collected from the delivery earlier the day of the site inspection. The samples will be held for future confirmatory lab analysis (should it be requested by the main office). The operator reports samples are collected from every RUO fuel load received for the operational season. Each was labeled with the date of RUO delivery. A review of confirmatory sampling confirmed that the sample collection schedule was consistent with permit requirements, and the company was able to provide analytical reports for samples collected and analyzed for every quarter in 2016 and 2017 in which RUO fuel deliveries were received.

The general permit for the facility requires the submittal to AQD of an acceptable plan describing how emissions will be minimized during all startups, shutdowns and malfunctions (SC 1.11). The plan is on file in the District Office.

#### Record Keeping and Reporting –

Under General Permit 156-95N requirements for record keeping and reporting included:

- Intermittent daily records of virgin aggregate feed rate, RAP feed rate, asphalt paving material product temperature and information sufficient to identify all components of the asphalt paving mixture. (SC 1.22)
- HMA mix design and time of start-up for each mix shall be recorded and kept on file until the end of the paving season. (SC 1.22)

As previously indicated feed rates and operational parameters are monitored continuously on the control screen (SC 1.16 and SC 1.18), with daily summary logs printed out and submitted to corporate. A review of the onsite records indicates that the information required to meet the above referenced record keeping and recording requirements has been met. A minimum of one year of the referenced records are stored onsite, with copies and additional year's records reported to be available for review at the main office.

Some or all of the following record keeping and reporting requirements were not available onsite, and are reported to most likely be completed by staff at the Main Office.

- Records of all significant maintenance activities conducted and significant repairs made to drum mixer/burner and fabric filter dust collector (EU001). In addition records for the fabric filter dust collector are to be consistent with the Preventative Maintenance program outlined in Appendix B of facilities general permit which requires logs in a bound notebook, (SC 1.20)
- Records of all CO emissions and related production data including the dates and times of emissions monitored (SC 1.17). CO emission data will be used to calculate the pounds of CO emitted per ton of HMA produced. (SC 1.24)
- Monthly records of type and amount of all fuel oils combusted, sulfur content by weight, specific gravity, flash point and their higher heating values. (SC 1.21)
- Average daily, monthly and 12-month rolling time period records of the amount of HMA paving material produced from EU001. (SC 1.25)

- Monthly records of tons of HMA produced containing RAP and the average percent of RAP per ton produced for HMA (SC 1.21).
- Monthly and 12-month rolling time period emission calculations of all criteria pollutants and HAPs listed in the Emission Limit Table for EU001 (SC 1.23)

The general permit for the facility requires that calculations for emissions referenced above be made available by the 15<sup>th</sup> of the calendar month for the previous calendar month. In addition, the general permit requires the facility to maintain copies of all records and calculations on file for a period of at least 5 years.

In addition to the above identified record requirements, the general permit requires the calculation of the annual fugitive dust emissions of particulate matter for EUYARD (SC 2.2) and the actual emissions of HAPs from FGFACILITY (SC 5.2). As indicated previously, the facility makes timely submittals of annual emissions as required by permit.

#### Summary --

On Tuesday, June 14, 2017, AQD District Staff arrived onsite to conduct a scheduled-site inspection at 2747 Priemer Road, Ubyly, Huron County, Michigan. One portable hot mix asphalt plant, Ace-Saginaw Paving Company Plant No. 4 (ASPC4) (SRN N5597) is associated with the location.

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Facility changes since the July 7, 2015, site inspection included the replacement of the previous two HMA storage silos with three relocated silos from their HMA plant in Burton, Michigan under Rule 285 (c) (iii) which exempts permitting for:

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The permitting requirement was presented to both Lansing AQD Permitting staff as well as District Staff. The point of discussion was whether loadout control and permit modification would be required at the time of replacement. Permit staff indicated that since Per a September 2016 policy, April 1992 was when the TBACT came into effect for the truck loadout controls. Only two of the three silos are in operation onsite and do not reflect a debottle necking of production onsite.

As a result of information obtained during the referenced site inspection and supplemental records provided by the corporate office it appears that the facility is operating in general compliance with the referenced general permit.

NAME Sharon J. LeBlanc

DATE 7/25/2017 SUPERVISOR C. Hare