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

N158027875

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|---|---|---|
| **FACILITY:** Ace-Saginaw Paving Company - Plant 9 | | **SRN / ID:** N1580 |
| **LOCATION:** 4711 VETERANS MEMORIAL HIGHWAY, SAGINAW | | **DISTRICT:** Saginaw Bay |
| **CITY:** SAGINAW | | **COUNTY:** SAGINAW |
| **CONTACT:** Tom Green , Manager, Environmental Services | | **ACTIVITY DATE:** 11/17/2014 |
| **STAFF:** Sharon LeBlanc | **COMPLIANCE STATUS:** Compliance | **SOURCE CLASS:** SM OPT OUT |
| **SUBJECT:** Company has contacted permits in Lansing to apply for permit modification. sgl | | |
| **RESOLVED COMPLAINTS:** | | |

**On Monday, November 17, 2014, AQD District Staff arrived onsite to conduct site inspection activities at 4711 Veterans Memorial Highway, Saginaw, Saginaw County Michigan. At the referenced location was one stationary, hot mix asphalt plant, Ace- Saginaw Paving Co. - Plant No. 9 (ASP9) (SRN N1580). One permit (Opt-Out Permit No. 178-87G) is associated with the ASP9 facility, with the initial permit issued on July 13, 1989 and the most recent modification approved on August 9, 2006.**

**The referenced permit is for a 400 Ton Per Hour (tph) CMI drum mix asphalt plant able to use alternative fuels including propane, natural gas, virgin fuel oil, blender fuel oil, or specification Recycled Used Oil (RUO). Site inspection activities were conducted with the intent of confirming the operational status and compliance with the referenced general permit. Due to heavy low lying cloud cover and strong winds, Visible Emission (VE) Observations were not able to be completed.**

**Mr. Joe Benjamin II (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. Ben Kroeger provided copies of required records as requested.**

## FACILITY DESCRIPTION

**The ASP9 facility is located at 4711 Veterans Memorial Highway, Saginaw, Saginaw County, Michigan. The facility is located along the Saginaw River, and is bounded by industrial properties. The facility is owned and operated by Edward C. Levy Company in the Saginaw Bay District.**

**At the time of the initial permitting Saginaw Asphalt Company (previous owner) had HMA Plants No. 5 (SRN B2985) and No. 9 (N1580) located on property. Plant No. 9 was reported to be a parallel flow HMA plant. Communications with Edward C. Levy staff indicated that the equipment associated with Plant No. 5 had been sold and the associated permits have been voided.**

**The permit identified four Emission Units (EU-001, EUYARD, EUACTANKS and EUSILOS) and one Flexible Group (FG) (FGFACILITY). At the time of the inspection, the referenced emission groups consisted of;**

- **EU-0001 -a Dillman Duo-Drum Counter flow plant reported to be rated at approximately 400 tons per hour**
- **EUSILOS -Four 300-ton HMA silos**
- **EUYARD –Fugitive dust sources including: plant roadways, plant yard, material storage piles and material handling operations (excluding cold feed aggregate bins)**
- **EUTANKS –Six asphaltic cement storage tanks, one horizontal tank for cutback asphalt, two RUO tanks and one diesel tank.**

**The facility is a non-PSD facility. Pollution control devices associated with the facility consist of a primary dust collector and bag house (installed in 2001) consistent with the previous permits. An upgrade in HMA drums, conveyors and controls was completed in 2008-2009. The burner and baghouse are monitored continuously in the control house. The operator reported that the baghouse**

has a high temperature sensor, with an auto shutdown for the plant. Secondary containment for the Aboveground Storage Tanks (ASTs) onsite was installed between the July 2010 and June 2013 site visits. At the time of the inspection, the facility has not implemented warm mix asphalt production methods, though they have been implemented at some of the other Levy sites in state.

The facilities normal operating schedule has been reported to be from approximately 6:30 a.m. to approximately 4:30-5:00 p.m., 5 days a week from April through November though actual operation will vary according to the job/work schedule and equipment conditions any given day/week.

COMPLIANCE HISTORY

A review of records available in District Files indicated that the last compliance inspection was conducted on June 5, 2013. A supplemental site visit was conducted on August 26, 2014, to observe crumb rubber mix activities at the referenced facility.

One complaint is of record since the June 5, 2013, site inspection. The complaint was received on November 6, 2014, was for black smoke from a crusher, and was not verifiable.

Annual MAERS have been submitted in a timely manner, and emission levels reported appear to meet permit requirements.

COMPLIANCE EVALUATION

Operational Status/Parameters – Upon arrival the ASP9 facility was noted to be operating, with trucks being loaded from the silos. At the time of the site visit, the facility was operating at a production rate of approximately 300 tons per hour, which is well below the maximum permitted capacity of 425 tons per hour (based on a daily average)(SC 1.7).

The mix being produced at the time was reported to be a MDOT 4-E1 mix, and was part of an approximately 1098 ton batch. The virgin aggregate feed rate was reported to be 217 tons/hour. The RAP feed rate was 69 tons/hour, resulting in an approximately 23% RAP mix. S.C. 1.5 of the permit limits a maximum of 50% RAP based on a monthly average. The mix temp was reported to be 379 degrees Fahrenheit.

S.C. 1.6 limits the total production reported for a 12-month rolling average to 595,000 tons of HMA. Based on data reviewed for 2013 and 2014, the facility is in compliance with the limit.

S.C.1.10 requires that the efficiency of EU-001 drum mix burners, by fine tuning the burners for proper burner operation and performance and to control CO emissions. Per permit conditions the tuning is to be conducted at the beginning of each season and after every 500 hour of operation, or upon a malfunction.

In addition to the required burner testing schedule, the facility is reported to conduct in-house monitoring of CO levels (S.C. 1.17). As for the fine tuning of burners, this is required to be conducted at the beginning of each season, after every 500 hours of operation and/or malfunction of the drum dryer or it's associated burner. Daily logs indicate that in-house staff conduct fine tuning and CO monitoring throughout the season, and that each event is to consist of 8 readings over a minimum of 30-minute period. Tune ups for the 2014 season included:

| Date | CO Reading range for 30 minutes (ppm) |
|---|---|
| 5/20/2014 | 255-265 |
| 5/21/2014 | 262-265 |
| 6/5/2014 | 91-125 |
| 7/15/2014 | 178-185 |
| 8/1/2014 | 185-189 |
| 8/20/2014 | 189-194 |

General Permit 178-87G 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 ASP9 facility PM control consist 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 8-inches of water. The pressure difference reported at the time of the inspections was 3.3 inches of water, within the permit requirements.

In addition, records provided indicated that filter bag replacement and black light inspections were conducted and were consistent with the preventative maintenance program for the fabric filter dust collector (Appendix B of the referenced permit). These activities are required by permit at least once per year. ASP normally performs the black light inspections at the beginning of each season.

| Date Inspected | Black Light | Physical Inspection | Bags Replaced | Other |
|---|---|---|---|---|
| 4/8/2014 | yes | yes | yes | |
| 5/20/2014 | | | | VE observations |
| 8/27/2014 | yes | | yes | |

PM collected as a result of the bag house operation is reclaimed and returned to the mix (G.C. 12).

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), ASP9 staff reported vapor condensation and recovery system, as well as the emission capture system had been installed, and were operating properly.

Records for the facility exist in files and electronically, which is common business practice. As reported in prior inspections, there is no formal bound log book outlining maintenance inspections and/or repair activities. With the exception of daily logs, which are maintained onsite for the season, all other records are maintained by the corporate offices, and are readily accessible upon request.

Material Usage Rates – Production at the facility is order driven. 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. Copies of daily usage reports were available for review. Hard copies of all daily use reports for the ASP9 facility operating season were kept in a file cabinet in the control room by the plant operator, additional records are available through the corporate 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 23% RAP. No exceedances of the 50% RAP limit were reported for the 2013-2014 data reviewed.

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.

The plant burner for the present season has been run using natural gas, which is allowed under S.C. 1.2 and is in compliance with S.C. 1.3 which does not allow the facility to burn hazardous materials. RUO has not been reported to have burned RUO for over four years. The operator reported that the plant had been approved, but at present there are no tanks for the material.

Emission Point – Multiple emission sources exist with respect to the facility these sources consist of the HMA plant and fugitive dust from stockpiles and roadways. Asphalt vapors generated during the process and loading are collected and reintroduced into the burner. Particulate Matter (PM) generated during process is collected through both a primary collector (knock out pot) and a secondary collector (bag house) with associated stack. Collected PM materials are reclaimed and re-introduced in the asphalt production process.

Fugitive dust control activities are recorded on daily logs, and consist normally of either sweeping, chloride or water treatments. Records of daily activities as well as the daily weather conditions are reported by the operator on his daily logs and are compiled by the corporate office and were provided upon request. No fugitive dust complaints are of record for the facility. Based on recorded information, and site conditions, it appears that the facility has implemented appropriate fugitive dust controls as outlined in Appendix A of the permit, and is in general compliance with S.C. 1.9.

Monitoring and Testing –

Verification and quantification of odor emissions (SC 1.13), emission rates for TACs (SC 1.14) and SO2, NOx, CO and VOCs (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 July 13, 1987 (required under permit 178-87) and October 22-24, 2002 (required under permit 178-87E). In previous inspections, a 1999 stack test report had been believed to be associated with the facility, but was found to be incorrect. No records of requests for additional testing were found.

A review of the summary test results for the referenced activities indicated that with the exception of naphthalene (tested in 2002), which was reported with a slight exceedance, the emissions were below permit limits (S.C.1.1a). Discussions with Permit Dept. Staff indicated that this issue was an issue with other HMA plants in the early 2000's, and that most of those permits were modified with higher emission limits for the parameters of interest as long as they met Rule 225 requirements. At the time of this report it appears that the company has been in contact with the AQD Permits Staff and will request a modification of the existing permit to correct naphthalene emission limits for the facility.

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). As previously reported records indicate that activities are being conducted in general compliance with permit conditions.

Prevention and Maintenance Plans –

General Permit 178-87G 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, ASP9 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 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. ASP9 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 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 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. ASP9 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. As referenced in earlier sections of the report, it appears that the facility is conducting bah house and CO monitoring activities in general compliance with permit conditions.

S.C. 1.8 requires a Compliance Monitoring Plan (CMP) for RUO, which is outlined in Appendix C of the permit. The CMP outlines the required activities for use of RUO as fuel. As no RUO is in use, the requirements for compliance under the CMP were not applicable during this compliance evaluation.

The 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). A copy of the plan was added to the District files as part of the July 16, 2012 compliance evaluation.

Record Keeping and Reporting –

Under General Permit 178-87G 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 of the following record keeping and reporting requirements were not available onsite, and are completed by staff at the Main Office and were readily available for review.

- 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 permit for the facility requires that calculations for emissions referenced above be made available by the 15$^{th}$ 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 4.2). A review of district files indicated that timely annual MAERS submittals have been made for the facility. The most recent being for the 2013 calendar year.**

**Summary –**

**On Monday, November 17, 2014, AQD District Staff arrived onsite to conduct site inspection activities at 4711 Veterans Memorial Highway, Saginaw, Saginaw County Michigan. At the referenced location was one stationary, hot mix asphalt plant, Ace- Saginaw Paving Co. - Plant No. 9 (ASP9) (SRN N1580). One permit (Opt-Out Permit No. 178-87G) is associated with the ASP9 facility, with the initial permit issued on July 13, 1989 and the most recent modification approved on August 9, 2006.**

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**Mr. Joe Benjamin II (Plant Operator) provided a general overview of operation and practices as well as provided operational information requested as part of the site inspection activities.**

**Evaluation of the facility records and onsite operations indicates general compliance with the referenced permit.**

**A review of the summary test results for the referenced activities indicated that with the exception of naphthalene (tested in 2002), which was reported with a slight exceedance, the emissions were below permit limits (S.C.1.1a). Discussions with Permit Dept. Staff indicated that this issue was an issue with other HMA plants in the early 2000's, and that most of those permits were modified with higher emission limits for the parameters of interest as long as they met Rule 225 requirements. At the time of this report it appears that the company will request a modification of the existing permit to correct naphthalene emission limits for the facility.**

NAME Shawn J LeBlanc DATE 2/9/2015 SUPERVISOR C. Hare