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

B428735097

FACILITY: CADILLAC ASPHALT, L.L.C.		**SRN / ID:** B4287
LOCATION: 4751 WHITE LAKE RD, CLARKSTON		**DISTRICT:** Southeast Michigan
CITY: CLARKSTON		**COUNTY:** OAKLAND
CONTACT: Doug Mecham , Plant Manager		**ACTIVITY DATE:** 05/03/2016
STAFF: Kerry Kelly	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: FY 2016 targeted inspection		
RESOLVED COMPLAINTS:		

On May 3, 2016, Tyler Salamasick and I (Kerry Kelly) conducted a scheduled inspection of Cadillac Asphalt, L.L.C. located at 4751 White Lake Rd., Clarkston, Michigan. This facility is identified by the State of Michigan with the State Registration Number (SRN) B4287. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules, and Permit to Install (PTI) No. 443-82H.

Cadillac Asphalt Clarkston is a hot mix asphalt (HMA) plant located in Oakland County Michigan. The facility is surrounded, within a 1500 foot radius, by commercial/industrial properties. The nearest residential area is approximately 1800 feet south of Cadillac Asphalt's Clarkston plant. Equipment/processes identified in PTI 443-82H at Cadillac Clarkston include;

Emission Unit ID	Emission Unit Description
EUHMAPLANT	Hot mix asphalt (HMA) facility including: Aggregate conveyors 650 tons per hour counterflow drum dryer/mixer Fabric filter dust collector
EUYARD	Fugitive dust sources including: Plant roadways Plant yard Material storage piles Material handling operations (excluding cold feed aggregate bins)
EUACTANKS	Liquid asphalt cement storage tanks
EUSILOS	Hot Mix Asphalt (HMA) paving material product storage silo

INSPECTION

Tyler and I arrived at Cadillac Asphalt at approximately 10:50 AM on May 3, 2016. Upon arrival we observed a detached white plume that appeared to be condensed water vapor emanating from the stack at Cadillac Asphalt. We entered the office at Cadillac Asphalt, identified ourselves, and explained the purpose of the inspection to Mr. Jeff Goretski, Division Manager. Mr. Goretski answered general questions pertaining to plant operations and PTI 443-82H special conditions (SC's). The plant was operating while Tyler and I were speaking to Mr. Goretski in the office and, according to Mr. Goretski, had started running at around 6:00 AM that day.

Mr. Goretski said the Cadillac Asphalt plant in Clarkston began running for the season on April 18, 2016.
Mr. Goretski introduced us to Mr. Doug Mecham, Plant Manager, and explained that Mr. Mecham would answer more detailed questions, provide records, and escort us on the site inspection. Mr. Mecham escorted Tyler and I to the control tower, answered questions, and provided requested records. Asphalt production had stopped for the day just before we met with Mr. Mecham.

EUHMAPLANT

Emission Limits and Testing

SC 1.1a through 1.1s limits particulate matter, carbon monoxide, sulfur dioxide, nitrogen oxides, lead, benzene, toluene, ethylbenzene, xylene, naphthalene, formaldehyde, acrolein, arsenic, nickel, sulfuric acid, manganese, and hydrogen chloride emissions from EUHMAPLANT. Compliance with the emission limits is demonstrated by testing, monitoring, and/or recordkeeping/reporting. According to SC 1.15, emission rates of CO (lb/ton), acrolein, arsenic, benzene, ethylbenzene, formaldehyde, lead, manganese, naphthalene, nickel, sulfuric acid mist, toluene, xylene, and hydrogen chloride will be verified and quantified by testing, within 60 days after commencement of trial operation, of EUHMAPLANT. The particulate emission rate (gr/dscf) is required to be verified according to SC 1.16. The baghouse exhaust emissions were tested at Cadillac Asphalt Clarkston August 8 – 14, 2007. The test report, including results, is on file at the DEQ – Southeast Michigan District office. This report indicates the baghouse exhaust was analyzed for the pollutants specified in SC 1.15 and SC 1.16 and all of the emission rates for the pollutants analyzed were below the limits set forth in SC 1.1a, SC 1.1c, and SC 1.1g through SC 1.1s. This test report demonstrates compliance with the testing requirements set forth in SC 1.15 and SC 1.16, the emission limits in SC 1.1a,

SC 1.1c, and SC 1.1g through SC 1.1s, and the recordkeeping requirements in SC 1.21. Testing for SO_2 and NO_x emissions was not conducted and is not required in PTI 443-82H. In the event stack test results do not exist for a specific pollutant, in this case SO_2 and NO_x, SC 1.25 requires the permittee using the emission factors in the Emission Limit Table. The monthly emission records submitted by Mr. Mecham (Attachment 1) indicate the emission factors used for SO_2 and NO_x, 0.140 lbs/ton and 0.12 lbs/ton respectively, are the same as the emission factors listed in the Emission Limit Table. Based on the monthly emission records from Mr. Mecham, it appears Cadillac Asphalt Clarkston is in compliance with SC 1.1e, SC 1.1f and SC 1.25 of PTI 443-82H.

SC 1.14 requires verification and quantifications testing of odor emission from EUHMAPLANT. A copy of the odor test conducted on August 8, 2007, and the odor test results, are on file at the DEQ –Southeast Michigan District Office. Cadillac Clarkston appears to be in compliance with SC 1.14.

Material Limits

The material usage limits in SC 1.2 specifies only natural gas, propane, or distillate, residual, blended fuel, or recycled oils with 0.6 percent or less sulfur content, be used as fuel in EUHMAPLANT. SC 1.3 pertains to the burning of hazardous waste, blended fuel oil or specification recycled used oil (RUO) in EUHMAPLANT. Mr. Goretski stated only natural gas is used as fuel in EUHMAPLANT. The Daily Recordkeeping Log and Monthly Summaries (Attachment 2) provided by Mr. Mecham supports Mr. Goretski's statement that only natural gas is used as fuel in EUHMAPLANT.

The use of asbestos tailings or waste material containing asbestos in EUHMAPLANT is prohibited in SC 1.4. Mr. Goretski said he knows no asbestos containing materials are used in EUHMAPLANT because they only use millings and asphalt removals from road jobs and they do not receive shingles or construction material.

SC 1.5 specifies the asphalt mixture process in EUHMAPLANT not exceed 50 percent reclaimed asphalt product (RAP) material based on a monthly average. Records of the monthly average RAP percent for January 2015 through April 2016 (Attachment 3) were provided by Mr. Mecham. The monthly average RAP percent for each month in this time period was less than 50 percent. The highest monthly average RAP percent, 41.9 percent, was reported for April 2016.

The HMA paving material yearly twelve month rolling average production is limited to 895,000 tons in SC 1.6. Twelve month rolling HMA production records for January 2015 through April 2016 (Attachment 3) were provided by Mr. Mecham. The twelve month rolling HMA production average for each month in this time period was less than 895,000 tons. The highest reported 12 month rolling average was 285,649 tons reported on November 2015, December 2015, and January 2016.

The HMA production rate is limited to 650 tons/hour in SC 1.7. HMA production rate records were provided by Mr. Mecham for April 18, 2016 through May 2, 2016 (Attachment 2) . The production rate each day for this time period was less than 650 tons/hour. The highest reported hourly HMA production rate was 303 tons/hour reported on April 29, 2016.

Based on the statements from Mr. Goretski and the documents provided by Mr. Mecham Cadillac appears to be in compliance with the material usage limits set forth in SC 1.2 through 1.7 and the recordkeeping requirements specified in SC 1.23, SC 1.25, SC 1.26, and SC 1.28.

Process/Operational Limits

SC 1.8 and SC 2.1 stipulate the permittee shall not operate EUHMAPLANT unless the fugitive emissions control program for EUYARD specified in Appendix A is implemented and maintained. Mr. Mecham showed me a copy of the fugitive emissions control program and stated he implements the plan. The fugitive dust plan requires areas where vehicles travel and paved roads in the plant be controlled by applications of water, sweeping, vacuuming, or anther approved method. According to Mr. Mecham the plant roads are swept once a week by Mainline Sweeping LLC and watered with a front-end loader by Cadillac Asphalt staff. Mr. Mike Zelenock, Cadillac Asphalt, provided sweeping records for April 27, 2016 through June 6, 2016 (Attachment 4). The sweeping records show the plant was swept once a week in the month of May 2016. Appendix A requires drop distances to be minimized when stockpiling and stockpiles be covered or treated with water or a crusting agent. Mr. Mecham said material is stockpiled in manner that minimizes drop distance and is watered with a front-end loader that is not overfilled. A daily log (Attachment 2) was provided by Mr. Mecham and includes weather conditions (rain), utilization of dust control, and the type of dust control (rain or front end loader). This log indicates the front-end loader was used to control fugitive dust all but two days between April 18, 2016 and May 2, 2016. Rain was indicated as the fugitive dust control method used on April 29, 2016 and May 2, 2016. Historical weather data from Weather

Underground indicates it did rain in Clarkston, Michigan on April 29, 2016 and May 2, 2016. The fugitive dust plan dictates trucks entering and leaving the site be covered and must limit their speed to 10 mph. A 10 mph speed limit sign was posted at Cadillac Asphalt. I did not observe any spills, dust/dirt on plant roadways, or fugitive emissions during my inspection at Cadillac Asphalt. It appears Cadillac Asphalt is in compliance with SC 1.8, SC 2.1, and the conditions in Appendix A.

According to SC 1.9, the permittee shall not operate EUHMAPLANT unless the preventative maintenance program (PMP) attached as Appendix B has been implemented and is maintained. The purpose of the PMP is to keep the dust collector in good operating condition, and thereby, maintaining the rated capture efficiency of the dust collector for the control of particulate matter. In evaluating compliance with the PMP I will also be evaluating compliance with SC 1.13 which requires the dust collector to be maintained and operated in a satisfactory manner. Mr. Mecham showed me a copy of the PMP and stated he implements the plan. The PMP requires the pressure drop across the fabric filter dust collector be continuously monitored and recorded at least once daily (condition 1 of Appendix B). Mr. Mecham said the pressure drop across the baghouse is continuously measured and is recorded once daily and provided me with baghouse inspection/maintenance records (Attachment 5) and the daily recordkeeping log (Attachment 2). The baghouse inspection/maintenance record includes the date, time, finding and description of activities as required in condition 8 of Appendix B. The daily recordkeeping log includes the pressure drop across the baghouse and the HMA product temperature. I observed the continuous pressure drop monitor readout on the control panel. The daily recorded pressure drop for April 18, 2016 through May 2, 2016 ranged between 3.5 and 3.6 inches of water, this is above the minimum pressure drop requirement set forth in Appendix B condition 1.a. PMP condition 2 requires the baghouse be equipped with a high temperature sensor and alarm system. The baghouse, according to Mr. Mecham, is equipped with a high temperature alarm system set at 400 degrees Fahrenheit. To avoid introduction of air contaminates into the outer air during bag changes, as required by PMP condition 3, Mr. Mecham stated the bags are "dropped" inside the baghouse. The baghouse inspection/maintenance record indicates the black light inspection, required before the beginning of each paving season (condition 6 of Appendix B), was conducted on March 29, 2016. In the March 29, 2016 record the finding was listed as "repair small [whole] near air intake". Another black light inspection was recorded on April 15, 2016, before the paving season started, and the description of activities was "all good". Mr. Mecham said spare bags and replacement parts for the baghouse are kept on site in a trailer. Condition 4 of Appendix B requires piping and seals be replaced as needed. Mr. Mecham stated he checks the piping and seals in the spring and periodically throughout the season to determine if replacements are needed. The Baghouse Maintenance Activities log submitted by Mr. Mecham specifies all the bags and diaphragms were changed on March 19, 2013. According to Mr. Mecham he has not seen any visible emissions from stack or baghouse. Based on the statements and document from Mr. Mecham, Cadillac appears to be in compliance with the process/operational limit set forth in SC 1.9 and the conditions in Preventative Maintenance Plan in Appendix B.

SC 1.10 stipulates the permittee shall not operate EUHMAPLANT unless the compliance Monitoring Plan (CMP) for RUO specified in Appendix C, or an alternate plan approved by the AQD District Supervisor, has been implemented and is maintained. Based on statements and documents from Mr. Mecham and Mr. Goretski, Cadillac asphalt does not use RUO at the Clarkston plant. SC 1.10 is not applicable to the current operations at Cadillac Asphalt Clarkston because RUO is not currently being used at this facility.

According to SC 1.11, the permittee shall not operate EUHMAPLANT unless the plan that describes how emissions will be minimized during all startups, shutdowns and malfunctions, attached as Appendix D, has been implemented and is maintained. Mr. Mecham showed me a copy of the Appendix D and stated he implements the plan. According to Mr. Mecham he follows the normal start-up and shutdown procedure specified in conditions 1 and 2 of Appendix D. Changes in asphalt mixes and drum/dryer conditions are monitored and a report printed for each change or alarm. Mr. Mecham submitted the print-out of the alarms (Attachment 9) on May 3, 2016 Condition 3 of Appendix D states the plant can remain in hot stop mode for two hours. Condition 4 says if a hot stop occurs and the problem cannot be corrected, the drum should be emptied of mixed material until the discharged aggregate gets dusty. When asked about hot-starts and stops Mr. Mecham said hot stops are "few and far between", last about 5 minutes, only occur in cases of emergencies such as a rock getting caught in the screen deck. If the problem that resulted in a hot-stop cannot be fixed the drum is emptied to the ground according to Mr. Mecham. As required by 4.A of appendix D Cadillac Asphalt maintains a record of maintenance personnel. A copy of the maintenance personnel record (Attachment 6) was submitted by Mr. Mecham. Mr. Mecham informed me that he does daily inspections of the plant in a manner that satisfies parts 4.B. through 4.C. of Appendix D. Part 4.D. of Appendix D requires a minimum number of replacement parts. Mr. Mecham informed us the required spare parts were located in a storage trailer on site. The baghouse variables and monitoring specified in Appendix condition 4.E. was assessed when determining compliance with Appendix B conditions 1. and section 2. Condition 4.G. in Appendix D requires continuous monitoring of stack temperature, mix temperature, and pressured drop across the baghouse. I observed the stack temperature monitor, mix temperature monitor,

and pressure drop gage in the control tower. Mr. Mecham confirmed these parameters are continuously monitored. Cadillac Asphalt appears to be in compliance with the process/operational limit set forth in SC 1.11 and the conditions in Emission Abatement Plan for Startup, Shutdown, and Malfunctions in Appendix D.

Monitoring
Continuous monitoring and intermittent daily records of virgin aggregate feed rate and RAP feed rate are required per SC 1.17. Compliance with this condition was shown by intermittent records of asphalt paving material product temperature and other information sufficient to identify all components of the asphalt paving material mixture required in and SC 1.24 and statements from Mr. Mecham. Mr. Mecham provided a record (Attachment 7) of the mix running at 7:15 AM on June 14, 2016 which included the production rate, mix temperature, asphalt temperature, RAP feed rate, aggregate moisture percent and virgin asphalt rate. This information, according to Mr. Mecham, is continuously monitored, recorded every 15-20 minutes, and will print out when a mix changes. Daily records (Attachment 2), which include RAP percent, daily RAP tons, daily virgin tons, and HMA product temperature info, for April 18, 2016 through May 2, 2016 were also provided by Mr. Mecham. Based on records provided and statements by Mr. Mecham, it appears Cadillac Asphalt is in compliance with SC 1.17 and SC 1.24.

SC 1.18 dictates the permittee shall monitor, with a handheld CO monitor, the CO emissions from EUHMAPLANT and the production data associated with the time the emissions data were collected at the start-up of every season, upon malfunction of the drum dryer or burner, and after every 500 hours of operation. The CO emission readings (eight averaged over at least half hour) shall be less than 500 ppmv as required in SC 1.18. Records of the CO emission reading and production data at the time of the readings are required in SC 1.27. Records of thirteen CO tests from May 7, 2013 through June 21, 2016 (Attachment 8) were submitted by Mr. Mecham. These records indicate one CO reading, not a complete data set of eight, was taken at the start of the paving season on April 18, 2016 and the CO concentration of this reading was 192 ppm. Only two of the thirteen data sets (April 21, 2015 and June 21, 2016) listed in the report submitted by Mr. Mecham consisted of a complete set of eight readings. The average CO readings for April 21, 2015 and June 21, 2016 were 140 ppm and 120 ppm respectively. It appears Cadillac Asphalt is in violation of SC 1.18 for not conducting a complete data set of eight CO readings at the start of the paving season.

Recordkeeping/Reporting/Notification
Compliance with the recordkeeping requirements in SC 1.21 was evaluated in the Emissions Limits and Testing section.

SC 1.22 states the owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to EUHMAPLANT. Mr. Mecham provided records of the baghouse maintenance activities for February 20, 2001 through April 15, 2016 (Attachment 5) and dryer/drum maintenance for May 2009 through April 2016 (Attachment 6). The records include inspections and repairs. These records demonstrate Cadillac Asphalt is in compliance with the recordkeeping requirement SC 1.22.

Compliance with the recordkeeping requirements in SC 1.23, SC 1.25, SC 1.26, and SC 1.28 were evaluated in the Material Limits section.

Compliance with the recordkeeping requirements in SC 1.24 was evaluated in the Monitoring section.

Compliance with the recordkeeping requirements in SC 1.27 was evaluated in the Monitoring section.

EUYARD
Compliance with the Process/Operational Limits and Recordkeeping/Reporting/Notification requirements set forth in SC 2.1 and 2.2 respectively were discussed and evaluated in the EUHMAPLANT Monitoring section.

EUTANKS
According to Mr. Mecham there are four 35,000 gallon liquid asphalt cement tanks, one 12,000 gallon double-walled diesel fuel tank, one 12,000 gallon TAC tank, and one unused 30,000 gallon RUO tank. I did not observe any tanks being loaded during the inspection and did not evaluate compliance with SC 3.1.

EUSILOS
SC 4.1 says EUSILOS shall not be operated unless the emission capture system for the top of each storage silo is installed, maintained, and operated in a satisfactory manner. SC 4.2 stipulates that EUSILOS shall not be operated unless loadout activities occur in an area from which the emissions are controlled. I observed a blue smoke machine over the top of the silos and truck loading area. I did not see any trucks

being loaded during my inspection and did not evaluate compliance with SC 4.1 and SC 4.2 as a result.

FGFACILITY

Cadillac Asphalt Clarkston has a synthetic minor HAP opt-out permit which limits facility-wide HAPs emissions to 8.9 tons/year for each individual HAP and 22.4 tons/year for aggregate HAPs (SC 5.1a and SC 5.1b). Records of actual individual and aggregate HAPs emissions, estimated using stack test results or emission factors listed in the EUHMAPLANT Emission Limit Table, per 12-month rolling time period are required in SC 5.2. Mr. Mecham provided records of individual HAP and aggregate HAP emissions for January 2015 through April 2016 (Attachment 1) estimated using AP-42 emission factors. The AP-42 emission factors are greater than the August 8-14, 2007 stack test emissions for Cadillac Clarkston. I consider the AP-42 emission factors acceptable since Cadillac Asphalt is permitted in SC 5.2 to use the stack test emission factors which are lower than AP-42. The HAP emissions records indicate both the 12-month rolling individual and aggregate HAP emissions are less than the permit limits. The highest 12-month rolling individual HAP emissions, in the records provided by Mr. Mecham, were 0.503 tons of formaldehyde for September 2015. Per the records submitted by Mr. Mecham, the highest 12-month rolling aggregate HAP emissions was 0.689 tons reported in September 2015. Based on the records provided by Mr. Mecham it appears Cadillac Asphalt is in compliance with conditions 5.1a, 5.1b, and 5.2.

CONCLUSION

It appears Cadillac Asphalt is in violation of SC 1.18 for not conducting a complete data set of eight CO readings at the start of the paving season.

NAME Benny Kelly DATE 6/22/16 SUPERVISOR CJE