

A4697

MAWIK

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

A469741494

FACILITY: NAGLE PAVING COMPANY		SRN / ID: A4697
LOCATION: 36520 AMRHEIM, LIVONIA		DISTRICT: Detroit
CITY: LIVONIA		COUNTY: WAYNE
CONTACT: James P. Oliver , Vice President		ACTIVITY DATE: 08/14/2017
STAFF: Jill Zimmerman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Target Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION : 08/14/2017
 TIME OF INSPECTION : 9:30 am
 NAICS CODE : 324121
 EPA POLLUTANT CLASS : PM
 INSPECTED BY : Jill Zimmerman
 PERSONNEL PRESENT : Jim Oliver, Vice President
 John Blaszak
 FACILITY PHONE NUMBER : 248-553-0600
 EMAIL : jblaszak@naglepaving.com

FACILITY BACKGROUND

Nagle Paving operates an asphalt batch plant producing paving grade asphalt. In 1996 the facility installed an asphalt drum mixer with a silo fume collection / incineration system and baghouse dust collector. This equipment was capable of using Recycled Asphalt Product (RAP) as the main ingredient. The facility is a Synthetic Minor source with permits limiting the annual production of hot mix asphalt to 1.1 million tons.

Nagle Paving is located in Livonia, and is bordered by Schoolcraft Road to the north, Levan Road to the east, Plymouth Road to the south, and Newburgh Road to the west. Nagle Paving operates twelve hours per day about 6 days per week, with work on Sunday if needed. In 2017 the plant began operating on April 25, 2017 and plans to operate until December 8, 2017.

COMPLAINT/COMPLIANCE HISTORY

There has not been a complainant registered against this facility. No Violation Notices (VN) have been issued to this facility since the last inspection.

PROCESS AND EQUIPMENT

Nagle Paving operates an asphalt plant with a counter current mixing drum. The aggregate is fed into one of four cold bins. A belt feeder conveys the aggregate through a scalping screen and across the weigh-bridge. The uniformly sized and weighed aggregate is finally fed into the drum of the double barrel mixer. From there, the aggregate enters the inner shell of the drum, and is heated to remove moisture. As the aggregate enters the outer shell of the drum, and begins moving in the opposite direction, the RAP is added followed by the liquid asphalt cement (LAC). The LAC is piped into the system through a pipe that is encased by a hot oil pipe to heat the LAC so that it flows into the process better. There are no flames or heating element to the outside of the drum. The finished hot mix asphalt is discharged from the mixer onto a drag chain conveyor. The conveyor moves the hot mix asphalt to the three storage silos. An enclosed hood, above the conveyor, captures the hot gases and vents them back into the mixer's burner. This control is referred to as the blue smoke incinerator. The exhaust from the drum is collected and controlled through a baghouse. The collected particles are

recycled back into the process.

The three storage silos permit the plant to operate at a steady, efficient rate without regard to truck availability and allow the facility to switch formulations. The silos also have the ability to store asphalt for several days. The entire process is computer controlled by the operator in the control house. The computer operator regulates the flow of virgin aggregate, liquid asphalt, and RAP based on the mix formulation.

The RAP consists of crushed hot mix asphalt from old roads. Nagle Recycling (SRN N7179), a separate operating facility on an adjacent property operates a permanent crusher. Therefore, no portable crusher is brought to the facility.

PROCESS CONTROLS

The particulate emissions from the drum are controlled with a 1088 bag baghouse. The bags are inspected monthly and replaced every other year during the offseason. The bags were last replaced in 2017. On the years when the bags are not replaced, the system is checked for leaks using a dye and black light at the beginning of the paving season. Any leaks are then repaired. The control operator can monitor the baghouse from the control room. Spare bags and replacement parts are kept onsite. The baghouse is equipped with a high temperature alarm, which will sound and shut down the plant should the exhaust temperature reach 350 F.

A stack test and visible emission testing was performed on June 11, 1997. The VE testing stated that the highest read VE was 5%, with an average VE of 0%. The performance testing for PM reported results of 2.02 pounds per hour and 0.01 grain per dry standard cubic feet. These results were under the permit limit for this facility. No other emissions appear to have been tested at this time.

INSPECTION NARRATIVE

I arrived at the facility at 9:30 am, and completed a visual surveillance of the area. No odors were detected, and no smoke was seen rising from the stack. There was rain the morning before the scheduled inspection, which had stopped as the inspection was beginning. The process was not initially operating when I arrived due to the rain.

I met with Mr. Jim Oliver, Vice President, and John Blaszak. Mr. Oliver is retiring from Nagle Paving Company and Mr. Blaszak is currently transitioning to replace Mr. Oliver. We decided to walk through the plant to observe the process. During this time, the drum was warming up to begin producing product. We observed the rock product being loaded into the drum as the process started. There was some VE observed as the initial product was being loading into a truck. The VE lessened and then ended shortly after start-up and was a result of starting the process. Steam was observed coming out of the exhaust stack for the drum. Because of the morning rain, all the raw materials had a higher than usual moisture content.

Next we went to the dispatch center and the control room. I spoke with the control room operator. The plant was warming up to produce a mix with about 30% RAP and at a temperature between 325 F and 330 F. The plant would be operating at 250 tons per hour. I reviewed the daily log sheets, which track production information required by the permit. I collected a copy of the daily production sheet for the previous day of production, and it is attached to this report. This log also contains the monthly and annual production. The facility operates the burners only on natural gas. There is no fuel oil stored on site used to operate the asphalt plant.

The countercurrent flow mixing drum was replaced in December 2011 with a similar drum. Some associated duct work was also replaced at this time. These changes did not change the process or emissions at the facility. Annual maintenance is performed on the drum during the offseason, including replacement of the wheel gear. These changes may have been subject to NSPS as reconstruction. Additional information on this reconstruction project will be obtained during the next onsite inspection.

This facility has three LAC tanks, two hold 30,000 gallons, and one holds 25,000 gallons. A 14,000 gallon tank holds SS/H Prime which is applied to the road before the asphalt is applied. It appears, based on a file review, that the initial asphalt plant was installed at this location in 1980 replacing an older asphalt plant at that time. It appears that these tanks may have been installed before July 23, 1984. Therefore, these tanks would not be subject to NSPS Kb. Additional information on the installation dates will be obtained during the next onsite inspection of this facility.

APPLICABLE RULES/PERMIT CONDITIONS

Nagle Paving is permitted under C-10650 through C-10652 for the installation of a replacement drum mixer with a silo fumes collection / incineration system and baghouse. The special conditions are as follows:

17. NA – This condition voids permit C-9029. This permit has never officially been voided. I will complete the void process as result of this inspection, as well as, void C-5384 which was issued March 24, 1980 and repeats the conditions in permit C-9029.
18. Compliance – During 2016, the throughput according to MAERS was 485,355 tons for the year. During 2017, the facility has produced less than 35,000 tons. During the onsite inspection, the facility was producing a mix at 250 ton per hour.
19. Compliance – Facility only uses natural gas.
20. Compliance – Heat input for burner meets permit conditions
21. Compliance – Facility only burns natural gas.
22. Compliance – Facility only burns natural gas.
23. Compliance – Facility uses between 15% and 40% RAP. During inspection, the next mix to be produced contained about 30% RAP
24. Compliance – The facility does not process any material containing asbestos; no roof shingles or any other construction building materials are used in the process.
25. Compliance – A log book is kept which tracks the hours of operation, the type and amount of fuel used, the %RAP, and the amount of asphalt produced. These records were reviewed during the inspection. Because no fuel oil was used, there is no record of the sulfur content in the fuel oil.
26. Compliance – The 12 month rolling average records are kept and were reviewed during the onsite inspection.
27. Compliance – Baghouse was operating properly during onsite inspection. Replacement bags are stored onsite should they be needed. All of the bags were changed in the baghouse at the beginning of the 2017 season.
28. Compliance – No changes have been made to the stack since it was installed
29. Compliance – MAERS calculation demonstrates compliance. The PM emissions for 2016 were less than 1.58 tons. Testing for PM emission was last completed on June 11, 1997 and showed that the equipment was operating under the permit limit.

30. Compliance – After the production process completed start-up, no VE were observed. The start-up process lasted less than 10 minutes.
31. Compliance – The facility is operating at about 45% of their permitted limits and are therefore operating below the NOx emissions limit. This condition will be further evaluated once the MAERS for operating year 2017 is submitted with the requested additional reporting emissions.
32. NA – Facility does not use Fuel Oil
33. NA – Facility does not use Fuel Oil
34. Compliance – The facility is operating at about 45% of their permitted limits and are therefore operating below the CO emissions limit. This condition will be further evaluated once the MAERS for operating year 2017 is submitted with the requested additional reporting emissions.
35. Compliance – The facility is operating at about 45% of their permitted limits and are therefore operating below the VOC emissions limit.
36. Compliance – The facility is only burning natural gas. Though this type of fuel may contain some HAP emissions, the amount would be lower than the permitted limit.
37. Compliance – Facility operating under this permit since January 1996. Notification that the facility was operating was received in 1996.
38. NA – Testing to verify CO, NOx, and VOC are not required at this time. The facility is only burning natural gas.
39. Compliance – The facility preformed a stack test on June 11, 1997.
40. Compliance – The facility preformed a stack test on June 11, 1997.
41. NA – No odor complaints have been received regarding this facility
42. Compliance – Roadways were watered during the onsite inspection. The facility waters the roadways as needed at least once per day. The facility also has a sweeper truck with sweeps the road at both Nagle Paving and Nagle Recycling as well as Levan Road, which separated both facilities.
43. Compliance – Records were reviewed on site of the sweeping and watering
44. Compliance – Collected particles are recycled into the process
45. Compliance – Plant located greater than 400 feet from property line.

MAERS REPORT REVIEW

This report was received on time. It appears that the PM 10 PRIMARY emissions were reported high by a factor of 1000. Once this was corrected, the emissions seem to be in line with what was reported in past years as well as what was reported for PM2.5. The facility is currently not reporting emissions for VOCs, NOx, and CO. During the next MAERS cycle, I will ask for these additional emissions to be reported.

FINAL COMPLIANCE DETERMINATION

Nagle Paving Company appears to be operating in compliance with all federal and state rules as well as all permit conditions for permits Permit C-10650 – C-10652. Further investigation is needed to determine whether the replacement countercurrent drum should be subject to NSPS review. During the next onsite inspection, these construction dates will be further investigated.

NAME Jill Zimmerman DATE 9/28/17 SUPERVISOR JK