

A4697
MANILA

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

A469750251

FACILITY: NAGLE PAVING COMPANY		SRN / ID: A4697
LOCATION: 36520 AMRHEIN, LIVONIA		DISTRICT: Detroit
CITY: LIVONIA		COUNTY: WAYNE
CONTACT: John Blaszak , Operations Manager		ACTIVITY DATE: 06/25/2019
STAFF: Jill Zimmerman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Target Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION : 06/25/2019
 TIME OF INSPECTION : 10:00 am
 INSPECTED BY : Jill Zimmerman
 PERSONNEL PRESENT : 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 2019 the plant began operating on April 25, 2019 and plans to operate until about December 2019.

COMPLAINT/COMPLIANCE HISTORY

No Violation Notices (VN) have been issued to this facility since the last inspection. A fugitive dust complaint was received on 6/1/2018 and was registered to Nagle Recycling. The investigation report was assigned to this Nagle facility. Both facilities are on adjacent property, owned and operated by the same company and work with concrete, asphalt and other rocky materials.

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 weight-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 1080 bag baghouse. The bags are inspected monthly and replaced every other year during the offseason. The bags were last replaced at the beginning of the season in 2019. 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 10:00 am on June 25, 2019 and completed a visual surveillance of the area. No odors were detected, and no smoke was seen rising from the stack. The roadways had recently been watered. The process was operating when I arrived.

I met with John Blaszak, Operations Manager. We decided to walk through the plant to observe the process. During this time, the drum was operating. Steam was observed coming out of the exhaust stack for the drum.

Next, we went to the dispatch center and the control room. I spoke with the control room operators, Rocky and Dave. The plant was producing a mix with about 28% RAP and at a temperature at 340 F. The plant was operating at 250 tons per hour. I reviewed the daily log sheet for the previous day as well as the monthly totals through May 2019. These logs track production information required by the permit. Additional production logs were reviewed onsite. 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. Mr. Blaszak stated that the cost to replace the drum was about \$200,000. The cost to reconstruct the entire plant would be about \$3,500,000. I explained that when the cumulative cost of replacing parts equals more than 50% of the cost

to replace the entire emission unit, which in this case is the asphalt plant, than the facility would need to apply for a new permit. At this time, it does not appear that a new permit is required. However, the costs need to be tracked moving forward.

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.

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 facility is also permitted under PTI 521-95 for asphalt plant equipment. The special conditions for C-10650 through C-10652 are as follows:

17. NA – This condition voids permit C-9029
18. Compliance – During 2018, the throughput according to MAERS was 504,950 tons for the year. Through May 2019, the facility has produced 50,298.35 tons based on records collected. During the onsite inspection, the facility was producing a mix at 250 ton per hour. The facility is limited to producing less than 500 tons per hour and 1,100,000 tons per year by this permit.
19. Compliance – Facility only uses natural gas.
20. Compliance – Heat input for burner meets permit conditions. The permit limit for heat input is less than 119 MMBTU per hour.
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 28% RAP compared to the limit of 50% 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 logbook 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 bags were changed in the baghouse at the beginning of the 2019 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 2019 were less than 1.64 tons. Testing for PM emission was last completed on June 11, 1997 and showed that the equipment was operating under the permit limit. This is below the limit of 16.6 tons per year.
30. Compliance – During the onsite inspection, no VEs were observed.
31. Compliance – The facility is operating at about 46% of their permitted limits and are therefore operating below the NOx emissions limit of 16.5 tons per year.

32. NA – Facility does not use Fuel Oil
33. NA – Facility does not use Fuel Oil
34. Compliance – The facility is operating at about 46% of their permitted limits and are therefore operating below the CO emissions limit of 30.8 tons per year. This condition will be further evaluated once the MAERS for operating year 2018 is submitted with the requested additional reporting emissions.
35. Compliance – The facility is operating at about 46% of their permitted limits and are therefore operating below the VOC emissions limit of 28 tons per year. This condition will be further evaluated once the MAERS for operating year 2018 is submitted with the requested additional reporting emissions.
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 performed a stack test on June 11, 1997.
40. Compliance – The facility performed a stack test on June 11, 1997.
41. NA – No odor complaints have been received regarding this facility since the last onsite inspection.
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. Undetermined – The actual distance of the plant from all property lines will be verified during the next onsite inspection.

MAERS REPORT REVIEW

This report was received on time and all the PM reported emissions appear to be reported accurately. The report was received on February 21, 2019 and was audited on May 24, 2019.

On September 26, 2019 I sent an email to Mr. Blaszak asking for additional information regarding the emissions of CO, NOx, and VOC. These emissions are not included in the MAERS report. During the next MAERS, I will request these pollutants be added to the report.

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.

NAME JDC Zimmern DATE 10/4/19 SUPERVISOR JK