

February 19, 2019

Mr. Tyler Salamasick Air Quality Division Michigan Department of Environmental Quality 350 Ottawa Avenue, NW Unit 10 Grand Rapids, MI 49503

 $(x_{i},y_{i},y_{i}) \in \{k_{i}, \ldots, k_{i}\}$

Re: Response to Second Violation Notice Superior Asphalt, Inc., Caledonia, Michigan (SRN No. N8295)

Dear Mr. Salamasick:

This letter is in response to your Second Violation Notice dated February 7, 2019. We apologize that our initial response to your first violation notice (VN) dated January 11, 2019 appeared inadequate or seemed to indicate that Superior Asphalt, Inc. (Superior) did not take odor complaints seriously. Although we were aware of prior complaints in 2018, it was our understanding that the reason a violation notice was not issued for the prior occurrences, was that the result of the MDEQ follow-up to the complaints indicated that the odors were not of sufficient frequency, duration and intensity to constitute a violation of Rule 901. We apologize for this misunderstanding. Superior has worked with Fishbeck, Thompson, Carr & Huber, Inc. (FTCH) to review all of the complaints from 2018 to determine possible causes and solutions to these issues. In addition, FTCH has reviewed the road patch brick making process we were performing during your December 12, 2018 inspection, and determined that the process qualifies for exemption pursuant to Rule 291.

FTCH contacted the MDEQ Grand Rapids District office to obtain documentation for the 2018 odor incidences through the freedom of information act (FOIA) process. Because of new confidentiality procedures, the detail on the incidents were not available in a timely manner to respond to your notice by the requested deadline of February 21, 2019. At this time, the MDEQ FOIA coordinator was only able to provide the dates and approximate times the incidents occurred. She stated that the only incidents in the MDEQ file for 2018 were on the following dates: July 6, August 7, September 10, November 5, and the December 12th date that resulted in the VN. FTCH worked with MDEQ meteorologist, Jim Haywood, to review upper air meteorological data. The upper air data provides a strong indication of when a temperature inversion may be taking place. A temperature inversion causes poor mixing conditions near ground surface causing pollutants emitted into the lowest level of the atmosphere to be trapped and concentrations to build. Stable conditions inhibit vertical and horizontal mixing near the ground and consequently, favor the development of a strong surface temperature inversion or radiation inversion. The condition like this is called an inversion because it is the reverse of a normal air pattern (i.e., warmer air below and cooler air above). The strength and duration of the inversion and elevation of the release compared to the inversion elevation has a large influence on the air quality. Air pollution will continue to accumulate until inversion disappears. There was some degree of inversion for all of the sited dates. The inversions for the July 6 and December 12 dates were extraordinarily strong and could cause low levels of odors to be trapped and accumulate to concentrations that may have been noticeable nearby.

The morning of December 12, 2018, there were multiple inversion layers, which would definitely cause pollutants to be trapped. Superior reviewed production data for this date and it was well below typical

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production volumes. The MDEQ file indicated the odor was observed at 8 am. Prior to this time, Superior had shipped only 10 tons of asphalt. Superior reviewed production data to determine the time the asphalt paving was being poured onsite to make the road patch product and found that this process did not start until 10 am, which was well after the time of the complaint. After further investigation, Superior discovered that the facility had run out of the expensive Ecosorb 206A additive that is added to incoming loads of liquid asphalt to reduce the odors. Because the facility does not typically operate in December, this additive was not kept on hand at the time the incident occurred. Superior has implemented a procedure to track usage of the Ecosorb 206A and to document that it is added to the tank with each shipment of liquid asphalt. Superior will also increase the quantity of the Ecosorb 206A kept onsite to make sure it is available when deliveries arrive. The facility is not currently operating. This new procedure will be implemented when the facility begins operation again in April.

Your February 7, 2019 letter also requested Rule 278a documentation demonstrating that the production of the road patch product is exempt from Rule 201 requirements. This documentation is provided as follows:

(a) A description of the exempt process or process equipment, including the date of installation.

Workers use asphalt haulers to transport finished asphalt product from the production facility to an open location onsite approximately 200 feet by 175 feet in area. The asphalt is poured to a thickness of approximately 4-5 inches in thickness. This takes approximately 1,000 tons of product to cover this area. After the asphalt has cooled for approximately 30-60 minutes, a crust is formed on the outer layer causing emissions to cease. The asphalt must cure for a minimum of 24 hours before it can be broken into the football sized pieces that are sold to be reheated and used as road patch. The date of December 12th was the only time this process was performed at the Caledonia facility.

(b) The specific exemption being used by the process or process equipment.

The process is exempt pursuant to Rule 291 Permit to install exemptions; emission units with "de minimis" emissions. The attached Table 1 provides a summary of the emissions from the process and a comparison to the emission limits in Rule 291. Although this process has only been performed for a single day, Rule 291 requires that potential emissions be compared to the emission limit thresholds, so emissions are based on 365 days of operation per year. As shown, emissions are below the Rule 291 limits. The specific emission calculations for each Rule 291 category are provided in Table 2.

(c) An analysis demonstrating that R 336.1278 does not apply to the process or process equipment. Rule 278 eliminates the applicability of an exemption rule if the proposed equipment:

- Would be subject to the Prevention of Significant Deterioration (PSD) Regulations (Michigan Air Pollution Control (APC) Part 18), or Nonattainment New Source Review (APC Part 19).
- Has an actual emissions increase that would be considered "significant" as defined in R 336.1119,
- Is a new or reconstructed major source of HAPs subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) contained in 40 CFR 63, or
- Is a new or modified source of HAPs subject to the National Emission Standards for Hazardous Air Pollutants contained in 40 CFR 61.

As presented in Table 1, the potential emissions of each criteria pollutant from the road patch process are not considered to be significant, and the process is not subject to the Prevention of Significant Deterioration (PSD) rules. Table 1 also illustrates that total HAP emissions from the

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unit are less than major source thresholds for HAPs; therefore, the unit is not subject to the 40 CFR Part 63 major source National Emissions Standard for Hazardous Air Pollutants (NESHAP) requirements. There are no 40 CFR Part 61 NESHAPs requirements applicable to the road patch process. Therefore, the process is not excluded from exemption pursuant to Rule 278.

If you have any questions or require additional information, please contact me at 616.464.3721.

Sincerely,

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Nithan Voruganti Plant Manager Superior Asphalt, Inc.

Attachments By email

cc/att: Ms. Heidi Hollenbach – MDEQ AQD District Supervisor Ms. Jenine Camilleri – MDEQ AQD Ms. Stephanie Jarrett – FTCH