Via Electronic Mail

December 5, 2022

Mr. Robert Byrnes
EGLE-Air Quality Division
BYRNESR@michigan.gov

RE: FCA US LLC— Jefferson North Assembly Plant (SRN N2155)
Response to November 14, 2022 Violation Notice

Mr. Byrnes:

This letter responds to AQD's November 14, 2022 Violation Notice ("VN") alleging noncompliance with the 4.8 lbs/job permit condition for volatile organic compound ("VOC") emissions at the Jefferson North Assembly Plant ("JNAP"), which appears in MI-ROP-N2155-2017 at FG-FACILITY S.C. I.2. FCA US LLC ("FCA") verbally self-reported this issue on October 28, 2022, and FCA also provided additional information in the November 7, 2022 Rule 912 notification letter attached as Exhibit 1. This VN response supplements the prior Rule 912 report by summarizing FCA's response plan.

FCA provided detailed information in the attached Rule 912 report and, therefore, summarizes some key points from that letter prior to addressing the response plan. Specifically:

- The 4.8 lbs/job limitation on VOC emissions is measured on a 12-month rolling basis, which means that the 5.06 lbs/job average that was reported at the end of September 2022 reflects operational and emissions data dating back to October 2021. FCA met this 12-month rolling average limit through August 2022.
- During the same 12-month period, JNAP's VOC emissions were far below the applicable annual limit at FG-FACILITY S.C. I.1. Specifically, S.C. I.1 limits VOCs to 1,085.9 tons/year, but JNAP only emitted 404.64 tons/year during the same 12-month period ending in September 2022, i.e., JNAP's VOC emissions were 73% below the VOC mass emission limit.
- JNAP's VOC emissions are not causing an adverse impact to the public or environment because JNAP is not emitting VOCs above any lbs/hr or tons/year emission limit. Rather, JNAP's unusually low production rate for new vehicles over the past 12 months has resulted in a higher rate of emissions *per unit*.
- As previously reported, the low vehicle production at JNAP has two main drivers: (1) JNAP underwent a vehicle transition this year that resulted in shutdown and startup issues; and (2) JNAP's vehicle production efficiency has suffered due to critical part shortages, including (but not limited to) the unavailability of computer chips.

Thus, the immediate issue does not present a public health or safety risk, i.e., the issue is due to JNAP's low production, not elevated emissions.

To address the 4.8 lbs/job rate, FCA is investigating potential improvements to minimize the emissions impact of the ongoing vehicle model transition as well as the low and inconsistent vehicle production. The potential improvements fall into the following categories:

1. **Booth Performance and Spray Equipment Performance**
   Two primary metrics for vehicle coating which impact VOC emissions are referred to as Transfer Efficiency ("TE") and Oven Solvent Loading ("OSL"). Optimizing the TE is an important issue during a new vehicle launch because the robot automation must be "tuned in" to minimize paint overspray. OSL is important because the coating process must be balanced across multiple zones to achieve efficient coating while also promoting the capture and control of VOCs for abatement.

2. **Reduction of Solvent use and Capture**
   Solvent usage, on a per unit basis, becomes a more significant factor at low production rates because the overall process requires more frequent purging/cleaning when there are gaps. Consistent production at higher volumes will reduce the relative impact of solvent-based VOC emissions, but increased stoppages have the opposite effect. Given the current market conditions, FCA continues to explore how best to minimize gaps, transitions, and stoppages as well as their impact on solvent usage. Similarly, FCA strives to recover as much purge solvent as possible.

3. **General Improvements**
   FCA is also looking at additional strategies to complete the vehicle model transition while also managing the unavoidable impacts of supply chain disruptions.

FCA expects to evaluate and implement operational improvements in these areas. At present, FCA anticipates a TE/OSL test in February 2023 that will measure the efficacy of these changes as well as the impact on the lbs/job VOC emission rate. Once FCA has those test results, it can better evaluate the timetable for returning to compliance with 4.8 lbs/job permit condition.

In sum, FCA believes that this letter, in combination with the attached Rule 912 report, provides the information that AQD requested. If you have any questions or concerns, however, please call or e-mail Matt Read (at 248-385-8093 or matthew.read@stellantis.com).

Sincerely,

Sean Woodall

Sean Woodall
JNAP Plant Manager

Enclosure: Rule 912 report (November 7, 2022)

C: Mr. Chris Ethridge, AQD
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