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Ford Motor Company

Ford Flat Rock Assembly Plant One International Drive Flat Rock, MI 48134

February 10, 2014

Mr. Jonathan Lamb Senior Environmental Quality Analyst, Air Quality Division Michigan Department of Environmental Quality (MDEQ) 3058 West Grand Boulevard Suite 2-300 Detroit, Michigan 48202

Subject: Flat Rock Assembly Plant (SRN N0929) - Renewable Operating Permit - MI-ROP-N0929-2011 Notice of Violation – January 21, 2014

This letter is in response to the Notice of Violation dated January 21, 2014 for failure to meet the required minimum VOC destruction efficiency of 95% and/or maximum VOC outlet concentration of 5 ppm requirements, as required per Renewable Operating Permit (ROP), MI-ROP-N0929-2011.

To address MDEQ's concerns regarding community odor complaints, Flat Rock Assembly (Ford) implemented of an Outlet Concentration Monitoring (OCM) plan to monitor on-going performance of the RCO/RTO system. Since plan implementation in November 2010, Ford has implemented several actions to maintain satisfactory RCO/RTO system performance including control system burner cleaning and tuning; valve inspections and adjustments (2011 and 2012); and replacement of all RCO valves in August 2013.

On October 22, 2013, Flat Rock Assembly (Ford) conducted the required annual RCO/RTO abatement system compliance test resulting in a VOC destruction efficiency of 89% and average VOC outlet concentration of 9 ppm. Included below is a summary of the actions taken by Ford to investigate and resolve the violation.

- In November 2013, Ford conducted a valve performance review to confirm the replacements made in August were correctly installed and operating as designed. The study confirmed acceptable installation and operation.
- In January 2014, an Operating Temperature Study was conducted on RCO C. Although outlet VOC concentrations were consistently lower than results obtained during the October 22, 2013 test, higher operating temperatures did not result in improved outlet concentration performance.

| Temperature Setting | RCO A | RCO B | RCO C | 1. To. |
|---------------------|--------------------------------|-------------------------------|----------------------------|----------------------------------|
| (°F) | ppm, propane | ppm, propane | ppm, propane | |
| 850 | | | 6.1 | |
| 900 | 8.5ª | | 6.5 | |
| 950 | 1.16.1.1 <u>2.11.</u> 11.1.1.1 | anglike <u>tan</u> inin sebat | 6.4 | Contraction (1996) (1996) (1997) |
| 1000 | 6.8 | 6.1 | 5.0, 6.9, 6.1 ^b | 梁市与大学学(的学校)。 |

This value does not include the "ramp down" data that was collected from 966-920 °F
 The 5 ppm reading was taken at the end of the production shift on January 28th and may not be representative of production conditions. Two additional runs were completed for RCO C at 1,000 on January 29th.

- In December 2013, temperature probes were installed in RCO C to support a Catalyst Media Temperature Profile. Preliminary study results indicate temperature variability in the monitoring locations. Ford is investigating study results to determine if more uniform temperatures can be achieved by optimizing burner controls. Changes to the burner control logic are planned for February 2014. The effect burner optimization will have, if any, on improved outlet concentration performance is unknown at this time.
- Ford has taken samples of the catalyst media for analysis. Based on the sample results, Ford will work with the catalyst media experts to determine potential washing options. Catalyst media washing in all RCOs would be performed during the next extended non-production period when ambient temperatures are above freezing. An outlet concentration monitoring event will be performed to verify the effectiveness of the catalyst media washing. If monitoring results confirm improved outlet concentration performance, a RCO/RTO compliance test will be performed to demonstrate with the ROP operating requirements.

Ford understands the Air Quality Division's (AQD) concern for potential odors if the abatement equipment is not operated properly. Given the reduced number of odor complaints and consistent performance of the RCO/RTO system, Ford respectfully requests a meeting with the AQD District Office and Permit staff to discuss an administrative solution to the RCO/RTO system compliance concern. We appreciated your assistance in resolving this concern. Dave Drinan of Ford's Environmental Quality Office will contact you to coordinate the requested meeting at your early convenience. Please contact Dave Drinan at (313) 390-8750 if you have any questions.

Sincerely,

Jan Cl

Timothy Young Plant Manager Flat Rock Assembly Plant

CC: Mr. Dave Drinan, Ford Environmental Quality Office
Ms. Danielle Fenbert, Ford Environmental Quality Office
Mr. Terence Filipiak, Ford Flat Rock Assembly Plant
Ms. Lynn Fiedler, Michigan Department of Environmental Quality
Mr. Thomas Hess, Michigan Department of Environmental Quality
Ms. Wilhemina McLemore, Michigan Department of Environmental Quality
Ms. Teresa Seidel, Michigan Department of Environmental Quality