

---

---

# **General Motors, LLC Detroit-Hamtramck Assembly**

## **RESPONSE TO COMMENTS DOCUMENT**

**June 17, 2020**

**PERMIT No. 209-19**

---

---



**Gretchen Whitmer, Governor**

**Air Quality Division  
Michigan Department of Environment, Great Lakes, and Energy**

*INTERNET: <https://www.michigan.gov/air>*

Mary Ann Dolehanty, Director  
Air Quality Division  
Constitution Hall, 2<sup>nd</sup> Floor, South Tower  
525 West Allegan Street  
P.O. Box 30260  
Lansing, Michigan 48909-7760  
Phone: 800-662-9278  
Fax: 517-335-0012

## Table of Contents

<b>Section</b>	<b>Page</b>
Public Participation Process.....	2
Summary of Comments Resulting in Changes to the Permit.....	3
Summary of Significant Comments .....	7
Public Health and Environment Concerns .....	7
Air Toxics and Risk Assessment .....	8
Permit Requirements .....	9
Emissions .....	9
Testing.....	10
Monitoring .....	12
Process/Operational Limits .....	13
Other.....	14
Permit Review Process .....	15
Non-Attainment Issues.....	18
Public Participation Process.....	18
Miscellaneous .....	21

## I. PUBLIC PARTICIPATION PROCESS

Permit to Install (PTI) application No. 209-19, for General Motors, LLC Detroit-Hamtramck Assembly (GM), is for a new automotive assembly line located at 2500 East Grand Boulevard, Detroit, Michigan. The public participation process involved providing information for public review including a Technical Fact Sheet, proposed permit terms and conditions, a public comment period, a virtual informational meeting, a virtual public hearing, and the receipt of written and verbal public comments on Air Quality Division (AQD) staff's analysis of the application and the proposed permit.

On March 25, 2020, copies of the Notice of Air Pollution Comment Period and Public Hearing, the Technical Fact Sheet, and the draft terms and conditions were placed on the Michigan Department of Environment, Great Lakes, and Energy's (EGLE or Department), Air Quality Division Home Page (<https://www.michigan.gov/air>). In addition, a notice announcing the public comment period, virtual public informational session, and virtual public hearing was placed in the *Michigan Chronicle*. The notice provided pertinent information regarding the proposed action; the locations of available information; a telephone number to request additional information; the date, time, and when and where information for how to join the virtual public informational meeting and virtual public hearing would be provided; the closing date of the public comment period; and the address where written comments were being received.

An updated notice, with links to translations for Arabic and Bengali, was posted on April 16, 2020, providing information regarding additional opportunities to ask questions and discuss PTI Application No. 209-19. Two additional virtual public informational sessions were scheduled for online participation and a call-in phone number was established so that interested parties could provide comment via voicemail.

Three virtual informational sessions were held by the AQD with a panel of representatives to answer questions via an online web meeting, as follows:

- April 23, 2020, the meeting began at 6:00 p.m. and concluded at approximately 7:00 p.m.
- April 30, 2020, the meeting began at 6:00 p.m. and concluded at approximately 6:45 p.m.
- May 27, 2020, the meeting began at 6:00 p.m. and concluded at approximately 6:35 p.m.

The virtual public hearing was held on April 30, 2020, via an online web meeting. The hearing began immediately following the informational session with Jenifer Dixon as the hearing officer and Mary Ann Dolehanty as the decision maker. Only comments on the proposed permit action were received. Approximately 28 people attended the public hearing with one providing an oral comment. The public hearing concluded at approximately 7:00 p.m.

A total of eleven written comments were received during the public comment period and hearing.

The remainder of this document is a listing of the significant comments received during the public comment period and hearing regarding the proposed permit and the Department's responses. The first section discusses the comments received that resulted in changes to the final permit terms and conditions and the basis for each change. The last section discusses the Department's responses to all other significant comments that did not result in changes to the final permit.

## II. SUMMARY OF COMMENTS RESULTING IN CHANGES TO THE PERMIT

### Comment

GM submitted a comment proposing to replace Special Condition IX.1 in FGNETTING2020 with the following:

1. *The permittee shall permanently cease operation of EUPRETREATMENT, EUELPOSYSTEM, EUPRIMERSURFACER, EUTOPCOATSYSTEM, EUFINALREPAIR, EUSEALERADH, EUBOOTHCLEAN, EUPURGE, EUMISCSOLV, all gasoline fuel filling operations, and all gasoline storage tanks containing fuel for vehicle fuel filling operations by July 1, 2020, or the date of issuance of this permit, whichever is later. (R 336.2802(d), R 336.2902(2))*

### AQD Response

Special Condition IX.1 in FGNETTING2020 contained the following language in the draft permit:

1. *The permittee shall permanently cease operation of EUPRETREATMENT, EUELPOSYSTEM, EUPRIMERSURFACER, EUTOPCOATSYSTEM, EUFINALREPAIR, EUSEALERADH, EUBOOTHCLEAN, EUPURGE, EUMISCSOLV, all gasoline fuel filling operations, and all gasoline storage tanks containing fuel for vehicle fuel filling operations no later than May 1, 2020. (R 336.2802(d), R 336.2902(2))*

The application proposed the shutdown of the referenced equipment as part of the netting analysis and initially stated May 1, 2020, as the estimated commencement of construction. The application review and public comment period has extended beyond the originally estimated date of May 1, 2020. Construction has not commenced on the new automotive assembly line; therefore, the date in this condition can be modified.

However, the commencement of construction could begin as early as the date of issuance of the permit. Therefore, the wording "whichever is later" would prevent the facility from commencing construction until July 1, 2020, since the emission decreases resulting from the shutdowns would not be realized until that date with the proposed wording.

Therefore, the AQD has decided that the language shall be changed to "...by July 1, 2020, or the date that construction commences on the new automotive assembly line,

whichever is earlier.” With this wording, the shutdown of the equipment is required, and the associated emission decreases will be realized prior to the commencement of construction, which can be prior to July 1, 2020.

#### Condition Changes

Special Condition IX.1 in FGNETTING2020 was changed to the following:

1. *The permittee shall permanently cease operation of EUPRETREATMENT, EUELPOSYSTEM, EUPRIMERSURFACER, EUTOPCOATSYSTEM, EUFINALREPAIR, EUSEALERADH, EUBOOTHCLEAN, EUPURGE, EUMISCSOLV, all gasoline fuel filling operations, and all gasoline storage tanks containing fuel for vehicle fuel filling operations by July 1, 2020, or the date that construction commences on the new automotive assembly line, whichever is earlier. (R 336.2802(d), R 336.2902(2))*

This change also requires the language in Special Condition VII.1 in FGNETTING2020 to be changed to the following:

1. *The permittee shall submit a written notification stating the date that operation of EUPRETREATMENT, EUELPOSYSTEM, EUPRIMERSURFACER, EUTOPCOATSYSTEM, EUFINALREPAIR, EUSEALERADH, EUBOOTHCLEAN, EUPURGE, EUMISCSOLV, all gasoline fuel filling operations, and all gasoline storage tanks containing fuel for vehicle fuel filling operations have permanently ceased within 7 days of July 1, 2020, or the date that construction commences on the new automotive assembly line, whichever is earlier. (R 336.2802(d), R 336.2902(2))*

#### Comment

During the public comment period, the AQD noted that EUGLASSBOND was inadvertently omitted as an applicable emission unit from FGACTOMACT in the Flexible Group Summary Table as well as in the Emissions Unit ID list under FGACTOMACT. This emission unit is subject to 40 CFR 63 Subpart IIII and should be listed in this flexible group.

#### AQD Response

40 CFR 63 Subpart IIII is a National Emission Standard for Hazardous Air Pollutants (NESHAP) regulation for Surface Coating of Automobiles and Light-Duty Trucks. EUGLASSBOND would still be required to follow the requirements of Subpart IIII regardless of whether it is specifically listed in FGACTOMACT, but this emission unit should be included in this flexible group. The language in the regulation addresses glass bonding materials, for which EUGLASSBOND is the representative emission unit. EUGLASSBOND should be included in FGACTOMACT.

### Condition Change

There are no specific changes to any special conditions. FGAUTOMACT was already under Flexible Group ID for EUGLASSBOND in the Emission Unit Summary Table. EUGLASSBOND has been added as an Associated Emission Unit ID under FGAUTOMACT in the Flexible Group Summary Table and has also been added to the Emission Unit listing in FGAUTOMACT.

### Comment

There were several comments received regarding the permit requirements to conduct testing every five years. To quote one comment: "There are many variables in the vehicle production process that could create failure of the process, and in turn health hazards. Testing every 5 years is not sufficient. This long period of time in between testing will not allow GM or the State to catch excess emissions or problems in the system leading to excess emissions." These comments requested that testing be performed with more frequency.

### AQD Response

In acknowledgement of the concerns the community has expressed that testing every five years is not sufficient, additional capture and destruction efficiency testing for volatile organic compounds (VOCs) has been included during the first five years of normal operation of the facility.

Capture efficiency testing shall be required on the following schedule:

- Within 365 days after the beginning of saleable vehicle production.
- Within 3 years after the beginning of saleable vehicle production.
- Within 5 years after the beginning of saleable vehicle production.
- At least once every five years from the last testing date thereafter.

Destruction efficiency testing shall be required on the following schedule:

- Within 365 days after the beginning of saleable vehicle production.
- Within 180 days of the end of the initial low production period as specified in SC III.1.
- Within 2 years of the testing required in SC V.5(b).
- Within 2.5 years of the testing required in SC V.5(c).
- At least once every five years thereafter.

If the testing during this initial normal production period verifies that VOC emissions comply with the emission limits, the testing frequency will be conducted at five-year intervals.

Condition Changes

The language in FGAUTOASSEMBLY, SC V.4 has been updated to the following to reflect the additional testing:

4. The permittee shall verify the capture efficiency through panel testing for each spray booth, flash-off area, observation zone, and oven portion of FGAUTOASSEMBLY to the respective VOC control device(s), by testing at owner's expense, in accordance with Department requirements and the U. S. EPA "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," September 2008, EPA 453/R-08-002, as amended. The testing shall be performed according to the following schedule:
  - a) Within 365 days after the beginning of saleable vehicle production.
  - b) Within 3 years after the beginning of saleable vehicle production.
  - c) Within 5 years after the beginning of saleable vehicle production.
  - d) At least once every five years from the last testing date thereafter.

Per the U. S. EPA "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," September 2008, EPA 453/R-08-002, the permittee must maintain a yearly demonstration that the most recent acceptable test remains valid and representative. This capture efficiency testing includes materials (sealers, et al) applied after EUDELPO and prior to EUPRIMER that are cured in primer curing oven. One spray booth, flash-off area, observation zone, and oven portion may be tested if the permittee provides a demonstration to the AQD that the tested spray booth, flash-off area, observation zone, and oven are representative. An alternate method, or a modification to the approved U.S. EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2902)**

The language in FGAUTOASSEMBLY, SC V.5 has been updated to the following to reflect the additional testing:

5. The permittee shall verify the destruction efficiency of each RTO in FGAUTOASSEMBLY by testing at the owner's expense, in accordance with Department requirements and according to the following schedule:
  - a) Within 365 days after the beginning of saleable vehicle production.

- b) Within 180 days of the end of the initial low production period as specified in SC III.1.
- c) Within 2 years of the testing required in SC V.5(b).
- d) Within 2.5 years of the testing required in SC V.5(c).
- e) At least once every five years thereafter.

Alternatively, the permittee may perform testing on representative RTOs upon receiving written approval from the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in 40 CFR 60 Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2902)**

### **III. SUMMARY OF SIGNIFICANT COMMENTS**

#### **A. Public Health and Environment Concerns**

##### Comment

EGLE never deals with the combined cumulative impact of individual sources.

##### AQD Response

The combined cumulative impact of individual sources can be reviewed for the same criteria pollutants through a modeling analysis. Based on AQD guidance, the review process for this application included cumulative modeling analyses for nitrogen dioxide (NO<sub>2</sub>) and particulate matter with a diameter of less than 2.5 microns (PM<sub>2.5</sub>) for each pollutant. These modeling analyses included emissions for these pollutants from both the GM Detroit-Hamtramck facility, as well as nearby sources. The results of the modeling analyses showed that there are no expected violations of any national standard of these pollutants.

The AQD does not look at cumulative risk for air toxics in the way that the commenter is referring. However, the AQD knows that this is a concern for the community. The air toxics rules provide limited opportunities to combine multiple air toxics into the review, or to account for background levels. Although unable to look at a true cumulative risk for toxics, the AQD does look at risk in the way that our current process allows.

The health-protective screening levels for toxic air contaminants (TAC) are set at conservatively low air concentrations based on toxicological/carcinogenic studies and are designed to protect sensitive groups.



In addition, the method in which the toxics analysis was performed contained a significant level of conservatism. The toxics analysis performed consisted of modeling each individual emission point to obtain its maximum impact on a modeling receptor grid. The maximum Predicted Ambient Impact (PAI) concentration for each TAC from each individual emission point was then calculated. The individual PAIs for each TAC were summed together and this value was compared to the appropriate screening level(s). This is a conservative approach, as the maximum PAI for each individual emission point will typically not have the same maximum point of impact. For example, a 126-foot tall RTO stack will disperse in a different manner and have a maximum point of impact that is different than a 50-foot tall stack in another area of the facility.

## **B. Air Toxics and Risk Assessment**

### Comment

The air toxics modeling analysis provided in Appendix E is insufficient to demonstrate compliance with Michigan Administrative Code R 336.1225. GM only modeled the TAC emissions that will result from the specific emission units being at issue in the permit. GM must also model the TACs by all other emission units at the facility, as well as TAC emissions from other nearby sources. This is necessary in order for GM to ensure that it will not cause or allow the emission of TAC levels which result in a predicted maximum ambient impact that is more than the relevant screening levels.

### AQD Response

R 336.1225 (also referred to as Rule 225) states “A person who is responsible for any proposed new or modified emission unit or units ... shall not cause or allow the emission of the toxic air contaminant ... in excess of the maximum allowable emission rate which results in a predicted maximum ambient impact that is more than the initial threshold screening level (ITSL) or the initial risk screening level (IRSL), or both, except as provided in subrules (2) and (3) of this rule and in R 336.1226.”

Only emission units (EUs) that are “new or modified” are subject to the Rule 225 review for TACs. If the impacts of certain TACs are above their respective IRSL, emissions of that particular TAC from the entire facility are evaluated against a secondary risk screening level. For this application, no TAC exceeded its respective IRSL. Therefore, the air toxics analysis demonstrates compliance with Rule 225.

The AQD would also like to reiterate that the air toxics analysis incorporated conservative assumptions, as noted above, and the resulting impacts were still well below the associated screening levels.

## **C. Permit Requirements**

### **Emissions**

#### Comment

There is no basis for VOC emissions for any emission units besides the Electro-Coat Paint Operation (ELPO), Primer, Topcoat, and Sealer processes. For example, miscellaneous solvent usage is estimated at 120 tpy, it provides no emission factors or calculations demonstrating how that figure was determined.

#### AQD Response

Miscellaneous solvent usage includes spray line purging, booth cleaning, and miscellaneous solvent usage for cleaning throughout the facility. Although the usage rates are not directly listed in Appendix A of the application, there are proposed usage rates for various cleaning materials in Appendix E. The AQD verified the requested level of emissions for the various cleaning materials, which is consistent with other automotive assembly plants and is representative of Best Available Control Technology (BACT) for VOCs for miscellaneous solvent usage. The AQD adjusted the usage rates to the requested levels and used those usage rates and the proposed VOC emission rate for the application review.

The emission rates for other VOC-emitting emission units are obtained through different methodologies. VOC emissions for some EUs are calculated using a combination of usage rates, VOC contents, and throughputs. Windshield washer fluid emissions are based on vapor displacement from fluid filling. VOC emissions from combustion sources are based on commonly accepted emission factors for combustion of the respective fuels.

#### Comment

The particulate matter (PM) emission rate for the RTOs is based on testing at a “similar source” but offers no detail on what the source was or how similar it is to the proposed project. In addition, the oxides of nitrogen (NO<sub>x</sub>) emission factor is based on “vendor data” but no vendor data is provided. The applicant must provide the basis for these pollutants.

#### AQD Response

The testing used as a basis for the PM emission rate was performed at another automotive assembly plant. The testing at the similar source was performed at multiple processes, including the electrodeposition oven RTOs, primer coating booths, spray booth RTO, topcoat RTOs, and topcoat processes. The proposed new automotive assembly line is in a configuration that is different than existing assembly lines, as all portions of the coating process are being exhausted to a bank of RTOs, which combines the emission rates from the various processes into two exhaust points. The results of the PM testing from the other automotive assembly plant were combined and, recognizing that the applicability is not a direct correlation as the exhaust characteristics are not

identical, a significant safety factor was applied for conservatism. Although a significant safety factor was used, the modeling analyses for particulate matter less than 10 microns (PM10) and PM2.5 meet the requirements of the National Ambient Air Quality Standards (NAAQS). Testing will be required to verify the proposed emission rates.

The NO<sub>x</sub> emission factors were provided in response to an additional information request during the application's technical review. The worst-case NO<sub>x</sub> emission factor from the proposed natural gas equipment was used for conservatism and these emissions were used for the modeling analysis and throughout the review process.

## **Testing**

### Comment

To determine compliance, the VOC content, water content and density of all materials to be used in vehicle manufacturing and assembly processes should be determined using the applicable Test Method 24 or a comparable/effective alternative as approved by EGLE-AQD. The PTI should not allow the permittee to use the manufacturer's formulation values as an alternative to determine the VOC content to demonstrate compliance as this approach may not be as protective or accurate as the specified test method.

### AQD Response

The ability to use manufacturer's formulation data is consistent with recently issued permits for automotive assembly lines.

The majority of liquid-sprayed coatings have a Method 24 performed by the supplier on a batch-by-batch basis. Other materials, such as sealers, adhesives, etc., typically have a Method 24 initially performed by the supplier, and then is updated as formulas change.

Therefore, the allowance to use manufacturer's formulation data is deemed acceptable to verify compliance with the permit.

### Comment

Concerning the diesel-fueled emergency engine, the initial performance testing required to demonstrate compliance with the applicable emission standards should be conducted within six months of startup, instead of within one year after an engine and control device is not installed/maintained/operated in accordance with the manufacturer's emission-related written instructions or after the permittee changes emission-related settings in a way that is not permitted by the manufacturer.

### AQD Response

Under the federal regulation 40 CFR 60 Subpart IIII, an engine may be considered "certified," which means it operates in a manner consistent with the emissions profile determined for that particular engine. If the engine is installed/maintained/operated

according to the manufacturer's instructions, the emissions profile is allowed for use in showing compliance with the applicable emission limits. Otherwise, a stack test must be performed on the engine to verify compliance with the associated emission limits.

The time period of one year is allowed in this regulation under 40 CFR 60.4211(g)(2). This time period is consistent with how previous diesel-fired emergency engines have been permitted and was written in accordance to the applicable federal regulation.

#### Comment

The permittee should maintain a yearly demonstration that the VOC, NO<sub>x</sub>, sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), Greenhouse Gases (GHGs) (as carbon dioxide (CO<sub>2</sub>e)), PM, PM<sub>10</sub>, & PM<sub>2.5</sub> emission rates are consistent with EGLE-AQD requirements.

#### AQD Response

Annual demonstrations that the latest test results are still valid and representative are required for VOCs, NO<sub>x</sub>, PM, PM<sub>10</sub>, and PM<sub>2.5</sub>. Emission rates for SO<sub>2</sub>, CO, and GHGs are from combustion sources and are based on commonly accepted emission factors.

The permit requires that the facility submit quarterly emission records to the AQD that include actual emission rates for each pollutant to show that the actual emissions from the facility are meeting their respective emission limits.

#### Comment

All EUs and FGs should be tested even if they are determined by the permittee to be identical.

#### AQD Response

The language in the permit defaults to testing all equipment and allows for the use of test results from a similar source upon providing a demonstration to the AQD that the tested equipment is identical to and/or representative of the other equipment. The AQD performs a review of this information and must agree with that determination.

Different pieces of equipment that are designed and built in an identical or very similar manner have similar emission profiles as a result of the design. If the demonstration provided by the facility is satisfactory, the emissions from one piece of equipment would be comparable to other identical units; therefore, representative units can be used for testing.

#### Comment

A commenter expressed concern that the RTOs may not achieve 95 percent destruction efficiency during the initial low production period and the maximum allowed VOC outlet concentration of 7 ppm as propane during this time.

### AQD Response

During the initial low production period, coating usage will be very low in comparison to normal production. As a result, the amount of VOCs exhausted to the RTOs will also be low. The destruction efficiency is dependent on the amount of VOCs going to an RTO (referred to as VOC loading) and the amount of VOCs exhausting from the stack. The RTOs may control VOCs to an acceptably low level, but not necessarily meet 95 percent destruction efficiency as they would during periods of higher VOC loading, such as what occurs during normal production.

The AQD evaluated RTO emissions of 7 ppm as propane using the maximum flow rate from the RTO stacks and determined that the project would still show compliance with the applicable rules and regulations at this level of emissions. The RTOs are required to operate during the initial low production period, which includes the requirements to monitor and record operational parameters to show that they are operating in accordance with the manufacturer's requirements.

### **Monitoring**

#### Comment

There should be increased air quality testing in the immediate vicinity of the GM-Hamtramck facility, so that the effects on our community may be known. This could be placed at a nearby public school, for example, and test results could trigger certain response by the facility. The current method where it seems no action is triggered unless people smell something offensive and know to call it in-that method does not work because it places the burden on people who are being exposed and it assumes that odor correlates directly with pollution.

#### AQD Response

EGLE has an air monitoring station located at Osborn High School on East 7 Mile Road. This monitoring station has been at this location for over 20 years where values for PM<sub>2.5</sub>, ozone, and NO<sub>2</sub> are measured and reported. Ozone and NO<sub>2</sub> are measured continuously and report in near real-time to our website at <http://www.deqmiair.org/>. Residents can also sign up for Enviroflash on that same webpage in order to receive air quality alerts. This area of Detroit is in a seven-county region that is classified as non-attainment for ozone, which means that the three-year calculated value for ozone is above the NAAQS. The area is meeting the NAAQS for all of the other criteria pollutants (SO<sub>2</sub>, CO, NO<sub>x</sub>, PM, and lead). EGLE intends to continue this monitoring station and additional measurements at this site are planned in 2021 to help assess the compounds that contribute to the formation of ozone.

Odors are only one way that EGLE could be notified of potential issues at the facility. The permit contains other requirements that the facility must comply with that will help verify

that the control equipment is operating properly. These requirements include periodic testing and monitoring of various operational data, such as keeping continuous records of the temperature of the oxidizers being used to control VOCs.

#### Comment

The proposed permit does not require the applicant to monitor or test for the actual level of VOC pollution that is being emitted. The permit only requires GM to verify the capture and destruction efficiency associated with its RTOs, but only once every five years. A restriction on a modification's potential to emit (PTE) must be accompanied by requirements demonstrating continuous compliance. A requirement to verify the capture and destruction efficiency does not meet this standard.

#### AQD Response

The verification of capture and destruction efficiencies are important aspects of determining compliance of the automotive assembly line. For this assembly line, the capture efficiency testing determines to which RTO(s) the VOCs are being exhausted. The destruction efficiency testing determines what percentage of the VOCs are being controlled in the associated RTOs.

VOCs are generated based on usage of VOC-containing materials in the electrodeposition, primer, and topcoat processes; the capture efficiency testing results determine to which RTO(s) the generated VOCs are being directed; and VOC emission rates are calculated by reducing the VOCs generated by the destruction efficiency of the associated RTO(s). These VOC emission rates are used to demonstrate compliance with the VOC emission limits.

There is supporting operational data monitored and recorded for the control equipment, including the RTO operating temperatures on a continuous basis, inspections of the particulate control systems, and maintenance/repair records. These operational data, in combination with the capture and destruction efficiency testing, are sufficient for assuring continuous compliance of VOC emissions from the assembly line.

#### **Process/Operational Limits**

#### Comment

GM is required to submit a malfunction abatement plan (MAP) for its RTOs within 90 days following production. As an enforceable part of the permit, the MAP must be subject to public notice and comment.

#### AQD Response

A MAP is a plan that facilities must develop for the associated control equipment that addresses preventing, detecting, and correcting malfunctions or equipment failures

resulting in emissions exceeding any applicable emission limitation. The MAP is specific to the control equipment installed by a facility, and many of these details must be determined after issuance of a permit.

The condition requiring a facility to submit, implement, and maintain a MAP is the enforceable requirement as placed into draft permits subject to public notice and comment. However, a MAP is an ancillary document to a PTI and is not subject to the same regulations regarding the public notice and comment process.

The MAP must be submitted to the AQD and is subject to review and approval by the Department. After submission to the AQD, the MAP may be obtained through a Freedom of Information Act (FOIA) request and, should the reader believe that there are any deficiencies, can contact the AQD District office. In addition, a MAP is open for comment during the renewal process for a facility's Renewable Operating Permit and would be posted to the AQD website during that time period.

#### Comment

GM assumed specific operating parameters (vehicles per hour, VOC contents, VOC usages, etc.) for calculations determining the PTE for each process. These must be accompanied by legally and enforceable permit conditions.

#### AQD Response

These operating parameters were used to evaluate the permit application through the flexible permit initiative and is based on a BACT review. Each individual BACT determination is incorporated into an annual VOC tons per year limit and a pounds of VOC per job limit. The pounds per job VOC emission limit is the combined emissions for each individual BACT determination and the expected job production.

The facility demonstrates compliance with the pounds of VOC per job emission limit by a combination of material usage records, production rates, stack testing, and equipment monitoring. VOC emissions from each individual process are calculated using the appropriate methodologies and applicable operating parameters, such as transfer, capture, and destruction efficiencies. The total VOC emissions are combined and a pound per job emission is determined.

#### Other

##### Comment

FGAUTOASSEMBLY, SC IX.3 authorizes projects involving physical changes or changes in the method of operation to an emission unit so long as the changes do not result in a "meaningful change in the nature or quantity of toxic air contaminants emitted from the stationary source." The phrase "meaningful change" should be precisely defined in the language of the proposed permit.

#### AQD Response

The phrase “Meaningful change in the quality and nature” is defined in Michigan Air Pollution Control Rule R 336.1285(3)(a). The AQD has also provided methodology for determining if a physical change or change in the method operation of an existing emission unit does or does not result in a “meaningful change” to that emission unit.

Therefore, the AQD does not believe that further definition of “meaningful change” is necessary for this specific permit.

#### **D. Permit Review Process**

##### Comment

The emission reductions associated with the shutdown of the coal boilers are not creditable and cannot be included in the netting analysis. A significant portion of the contemporaneous decreases used in GM’s netting analysis have been relied upon in PTI 91-15, which was issued pursuant to Rule 336.1201(1). Permit 91-15 was made explicitly conditional upon the cessation of burning coal in 4 powerhouse boilers. The boiler shutdowns upon which the issuing of PTI 91-15 was conditioned are the same decreases which GM is now using in its netting analysis. Including the decreases from the shutdown of these boilers is double counting, as these decreases have already been relied upon in the issuing of the previous permit.

Absent these decreases, the net increases of NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would all remain above the significant emissions rate, subjecting the proposed permit to both Prevention of Significant Deterioration (PSD) review and Nonattainment Review.

##### AQD Response

The purpose of PTI No. 91-15 was to remove coal-burning capabilities from the powerhouse for Boilers 1, 2, 3, & 4. Boilers 2, 3, & 4 were shut down and Boiler 1 continued to operate with only natural gas capabilities.

During the review process for PTI No. 91-15, the AQD determined that Boiler 1 could always burn natural gas at fully rated operation, so eliminating the coal capability did not change the method of operation of the boiler. With no change in the method of operation and no increase in emissions, new source review was no longer considered to be applicable to that project.

Issuance of PTI No. 91-15 was not contingent upon the removal of coal-burning capabilities, as the decrease in emissions as a result of the elimination of burning coal was not relied upon during the review for PTI No. 91-15 for a netting analysis or PSD review. Therefore, the emissions reductions remain creditable.



Comment

It is unclear when each of the coal-fired boilers were actually shutdown, and if the decrease in emissions associated with the shutdown occurred within the contemporaneous period. There is a large decrease in emissions from 2013 and 2015. For the decrease in emissions resulting from the shutdown of the coal-fired boilers to be contemporaneous with the proposed modification, the decrease in emissions from the boilers must have occurred within five years of construction of the modification.

EGLE should verify when the decrease in emissions from the boilers actually occurred, determine when each distinct boiler was actually shut down, and how much pollution each boiler was actually emitting during the contemporaneous period. The contemporaneous periods for any single boilers must be adjusted based on actual shutdown. Additionally, if the coal boilers were operating at a significantly reduced capacity by December 2015, this should be taken into account and should limit the reductions GM can claim in its netting analysis. Otherwise, PTI applicants will be allowed to continue to operate emission units at very low levels for prolonged periods of time and still use it for this type of analysis.

AQD Response

The conditions in PTI 91-15 required GM to submit a notification for Boiler 1 within seven days of permanently ceasing burning coal or within seven days of December 31, 2015, whichever came first. The PTI also required GM to submit a notification for Boilers 2, 3, and 4 within seven days of permanently ceasing operation if it occurred prior to December 31, 2015.

The facility submitted a notification on December 11, 2015, stating that coal-burning operations had permanently ceased on all four boilers on December 4, 2015. Therefore, the action occurred less than five years prior to the start of construction, currently estimated to begin by July 1, 2020.

Although the boilers were operating at reduced capacities during 2015, the end of coal-burning operations for the four boilers occurred during the contemporaneous period. The baseline actual emissions are then calculated using the maximum average 24-month emissions over a ten-year lookback time period.

Comment

The applicant failed to include all contemporaneous and creditable emissions increases in its netting analysis.

In 2015, GM undertook a massive project to update this facility. It invested \$300 million, including the construction of a new body shop, and hired 1,200 workers to staff its expanded operations. These upgrades to the facility were accompanied by increases in emissions. An increase in VOC emissions occurred in 2016 soon after the facility significantly changed its operation. The increase is actually larger than that shown in the

application since Table A.13 is only depicting emissions from sources to be shut down rather than from its entire facility, as is required in determining contemporaneous increases. GM DHAM reported total VOC emissions in 2014, 2015, and 2016 of 195.3, 283.81, and 446.17 tons per year, respectively. The average from 2014-2015 is 239.2 and the increase in 2016 relative to that average is 206.97 tons.

A proper netting analysis must include *all* creditable and contemporaneous increases and decreases, so GM's calculation should be New Potential Emissions (352 tpy) – (Contemporaneous Decreases (359.8 tpy) – Contemporaneous Increases (206.97 tpy) = 199.17 tpy. This net increase is well above the significant emissions rate of 40 tpy.

EGLE must identify all creditable increases in emissions that have occurred during the contemporaneous period that GM failed to identify in its permit application and adjust the net emissions increase accordingly.

#### AQD Response

PTI No. 196-14 was issued for the proposed installation of new natural gas-fired air supply houses for the existing topcoat operation and the replacement of the existing oven incinerators with RTOs.

There were a number of other activities listed in the application for PTI No. 196-14. During the review process, the AQD determined that the activities listed in the application not associated with the natural gas equipment were part of routine repair and maintenance or routine operation of the facility and did not affect process emissions.

The proposed installation of the natural gas equipment was to take place over time, so PTI No. 196-14 was written such that the facility would continue operating under the previously allowed emissions limits and conditions until the air supply houses and RTOs were installed. However, no air supply housing units, nor the proposed RTOs, were ever installed at the facility and the VOC permit limit for topcoat operations remained unaffected. The investment discussed in the comment is associated with routine repairs and operations between models.

The increases and decreases in emissions from 2013 through 2018 were attributable to market demand, as the facility produced approximately 40 percent more vehicles in 2016 than in the previous year. Production at the facility then dropped by approximately 50 percent from the peak in 2016, resulting in lower VOC emissions in 2017 and 2018.

Since no equipment associated with process emissions was installed, there was no physical change or change in the method of operation as a result of PTI No. 196-14. The noted increase was allowed per the facility's previous permit, continued under PTI No. 196-14, and is not considered a contemporaneous increase.

## **E. Non-Attainment Issues**

### Comment

I urge that any permitting or manufacturing process take aggressive efforts to not only avoid increases but achieve decreases in air pollution in our area. We are considered a “non-attainment” region.

### AQD Response

An area that does not meet one or more of the U. S. EPA’s NAAQS is called a non-attainment area and is subject to special permitting requirements if the project is projected to emit at levels greater than certain thresholds. The netting analysis for this project showed that this application was not subject to Non-Attainment New Source Review.

Although this application is not specifically subject to Non-Attainment New Source Review, the new automotive assembly line will have a level of control that the previous assembly line did not. This will significantly lower short-term VOC emissions, and result in a VOC emission limit for the new assembly line that is comparable to the actual VOC emissions from the previous line, which was not operating at full capacity.

## **F. Public Participation Process**

### Comment

The public participation process should be extended until the termination of the state of emergency pursuant to Executive Order 2020-04, or at least 90 days from April 30, 2020, whichever comes later. The COVID-19 pandemic is greatly reducing residents’ capacity to meaningfully engage in this public participation process.

### AQD Response

The public participation process is an important part of the permitting process. This draft permit was subject to the public participation process specified in section 5511(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. In accordance with this rule, EGLE is required to provide at least 30 days for public comment. The notice, draft permit, and supporting documents were posted for public comment on March 25, 2020. The public comment period was originally scheduled to close on April 30, 2020.

After receiving concerns from several interested parties, the AQD realized the current circumstances may make it more difficult for residents to engage in the public participation process. In accordance with Governor Whitmer’s executive order allowing portions of the public participation process to be held virtually, the AQD extended the comment period by four weeks to May 29, 2020. In addition to extending the deadline for the comment period and providing the typical documents and information, additional outreach regarding this application and draft permit were done. These included:

- Translations of the notice and proposed project summary to the most common non-English languages in the community, Arabic and Bengali.
- Three opportunities to participate in virtual informational sessions and a virtual public hearing.
- Translated recordings of the informational sessions and hearing which included the availability of closed-captioned translations.
- A call-in number for receiving verbal comments by phone

Based on this, the AQD has determined that an additional extension to the comment period past the date of May 29, 2020, is not warranted.

#### Comment

A high number of residents living nearby the facility lack any type of internet access, making their participation in a virtual public hearing impossible. Holding a virtual public hearing will not provide the residents that are most impacted with a way to meaningfully engage in EGLE's final decision.

#### AQD Response

Based on the requirements in the State of Michigan during the COVID-19 pandemic, a physical gathering for an informational session and hearing was not allowed. As a result, the virtual informational sessions and virtual public hearing were held through web-based platforms.

The AQD understands that some residents in the area do not have reliable internet access to be able to access the web-based sessions. The public's access to information about the application and draft permit are important to the AQD. In order to allow for greater ability to participate in the public participation process, review information, and get answers to questions, the AQD did the following:

1. In the notice of hearing, the AQD indicated various ways for residents to access hard-copy information.
2. To submit comments, the AQD created a voicemail box, where comments could be given verbally without the use of the internet.
3. A call-in number was provided for each of the informational session and hearing.
4. In all written and virtual communication, ways the public could access either written information about the application and draft permit or AQD staff directly, were provided repeatedly.

#### Comment

The public information sessions and the public hearing were scheduled during the first week of Ramadan. Just about any other time would be better to get information and comments from the community most impacted by the permit now under construction. I would suggest extending the comment time to June 30 to allow for greater community participation.

### AQD Response

The AQD understands the first two informational sessions and hearing were held during the observance of Ramadan and apologizes for not originally taking this into consideration. A third informational session was held on May 27, 2020, after the observation of Ramadan ended, providing an opportunity for those residents to get information and to ask any questions. The public was able to submit comments until midnight on May 29, 2020, through all available methods, including the call-in phone number, email, online, and by written mail.

### Comment

EGLE has failed to provide adequate notice and interpretation services to limited English proficient persons to ensure that such individuals have the opportunity to provide meaningful input regarding this permit decision in violation of Title VI of the Civil Rights Act. The decision for this application should be delayed. An additional, translated notice must be posted and another hearing must be held with provided interpretive services.

### AQD Response

The initial posting for the notice and associated information was made on March 25, 2020. Translations of the notice of hearing and the proposed project summary were released on April 17, 2020, along with the four-week extension to the comment period, which was posted in Arabic, Bengali, and English. These translated documents were posted on AQD's Public Notice webpage, sent out through our Air Quality listserve, posted on the EGLE calendar, and posted physically at several markets in the area around the facility.

Real-time translation is not a viable option for the informational sessions. However, the informational sessions and hearing were recorded and closed-captioned translations into Arabic and Bengali were provided within a few days of each session.

Although the informational sessions and public hearing were opportunities for those in the community to engage directly with AQD staff, these were not the only avenues where comments regarding the proposed project could be made to the AQD. The AQD also provided several ways for the public to submit their comments regarding the proposed project besides during the Public Hearing. Comments could be submitted in one of three ways:

- By U.S. Mail
- By email
- By voicemail

The actions taken by the AQD to notify the public regarding this application and draft permit met or exceeded the minimum public participation requirements of state and federal law. These actions included:

1. Providing the notice of hearing in Arabic, Bengali, and English.

2. Providing project-specific information for public review (a Proposed Project Summary (in English, Arabic, and Bengali), a Technical Fact Sheet and proposed permit terms and conditions).
3. Extending the public comment period to May 29, 2020.
4. Posting information about the informational sessions and hearing in several digital and physical locations.
5. Advertising access to hard copies of information, if requested.
6. Adding two additional virtual informational sessions, for a total of three.
7. Providing call-in numbers for all informational sessions and the hearing.
8. Creating a voicemail box available to receive public comment.

Based on this, an additional public notice and public hearing are not warranted.

## **G. Miscellaneous**

### Comment

I believe we can employ our communities in more environmentally sustainable work than building cars. Therefore, I urge you to reject the permit request, or at least commit to following up frequently to make sure they meet or exceed air pollution standards set by the law.

### AQD Response

The location of any facility is an issue addressed by local governments through the planning and zoning process. The AQD does not control the selection of sites for industrial facilities, nor does it have jurisdiction over local zoning issues.

For facilities of this size, AQD inspections are done every two years. During the beginning of operation, this will be even more frequent with observation of testing and follow-up during the equipment installation process. In addition to inspections and facility visits, there are also numerous requirements listed in the permit that must be performed more often. Examples of additional requirements are: RTO temperatures must be continuously monitored and recorded, and particulate filter systems must be visually inspected on a weekly basis. The facility must keep records and submit them to the AQD upon request.

### Comment

The facility is very close to a number of schools. It is necessary for the proposed permit to require the applicant to take specific measures to limit the health impact the modification and the operation of the facility will surely have on the children that attend these nearby schools. A recent study concluded that installing air filtration systems in schools can drastically reduce indoor air pollution leading to substantial improvements in student achievement. The permit should require GM to install such air filtration systems at nearby schools.

#### AQD Response

The AQD does not have the regulatory authority to require the facility to provide air filtration systems to the community.

Modeling analyses for NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and toxics were performed as part of the technical review for this permit application. All modeling analyses resulted in impacts below each respective standard. These standards have been established as protective of public health, including that of the most sensitive individuals.

#### Comment

One commenter stated the need for environmental justice laws, not an environmental agency pushing paperwork to approve every industrial project proposal.

#### AQD Response

Environmental justice means the fair, non-discriminatory treatment and meaningful involvement of Michigan residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by the state. The two pillars of environmental justice are the fair treatment of all people and providing for meaningful public involvement in government decision-making.

For the proposed permit, the AQD provided for meaningful public involvement in several ways. The AQD provided summary documents about the permit applications that were less technical, provided a short presentation about the projects before the hearing, held three question-and-answer public information sessions, and held an extended public comment period of 65 days. The AQD encouraged citizens to provide written comments as an alternative to providing verbal comment during the hearing. There was also a call-in number established for anyone wishing to provide verbal comment outside of the hearing. This outreach, education and comment process for the permit application was consistent with the environmental justice principle of providing opportunities for enhanced public participation. As with any public hearing, a mailing list is developed of interested citizens. Because of the interest shown for this project, we now have a more robust list of interested parties for this locale for planning and outreach purposes.

The environmental justice principle of fair treatment means that no group of people, including racial, ethnic, or low-income populations should bear a disproportionately greater burden resulting from environmental laws, regulations, policies and decision-making. The AQD strives to protect the health and welfare of all citizens of the State of Michigan. The established state and federal air quality standards are designed to be protective for all segments of society, including the most sensitive. Therefore, the AQD has not attempted to determine the economic or racial demographics of the area, but has determined that the permit, as approved, will meet all applicable air quality standards and health protective requirements and is not expected to have a negative impact on the community.

Prepared by: David Thompson