



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

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Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

## NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a  
Significant Modification to a  
Part 70 Operating Permit

for General Motors LLC Fort Wayne Assembly in Allen County

Significant Source Modification No.: 003-37324-00036

Significant Permit Modification No.: 003-37339-00036

The Indiana Department of Environmental Management (IDEM) has received an application from General Motors LLC Fort Wayne Assembly, located at 12200 Lafayette Center Road, Roanoke, IN 46783, for a significant modification of its Part 70 Operating Permit issued on November 13, 2014. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow General Motors LLC Fort Wayne Assembly to make certain changes at its existing source. General Motors LLC Fort Wayne Assembly has applied to construct new natural gas combustion units and retrofit existing steam units with the ability to use natural gas.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Allen County Library  
900 Library Plaza  
Fort Wayne, IN 46802

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

### How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30<sup>th</sup> day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SSM 003-37324-00036 and SPM 003-37339-00036 in all correspondence.

**Comments should be sent to:**

Amal Agharkar  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for extension 2-8422  
Or dial directly: (317) 232-8422  
Fax: (317) 232-6749 attn: Amal Agharkar  
E-mail: Aagharka@idem.IN.gov

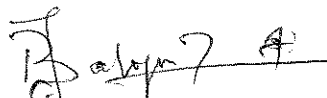
All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**What will happen after IDEM makes a decision?**

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Amal Agharkar or my staff at the above address.



Josiah K. Balogun, Section Chief  
Permits Branch  
Office of Air Quality



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Governor

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Commissioner

## DRAFT

Matt Arbuckle  
General Motors LLC Fort Wayne Assembly  
12200 Lafayette Center Road  
Roanoke, IN 46783

Re: 003-37339-00036  
Significant Permit Modification to  
Part 70 Renewal No.: T003-33417-00036

Dear Matt Arbuckle:

General Motors LLC Fort Wayne Assembly was issued Part 70 Operating Permit Renewal No. T003-33417-00036 on November 13, 2014 for a stationary automobile and light duty truck assembly source located at 12200 Lafayette Center Road, Roanoke, IN 46783. An application requesting changes to this permit was received on June 22, 2016. Pursuant to the provisions of 326 IAC 2-7-12, a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified. The permit references the below listed attachment(s). Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this modification:

- Attachment A: 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
- Attachment B: 40 CFR 60, Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating
- Attachment C: 40 CFR 63, Subpart IIII - Surface Coating of Automobiles and Light-Duty Trucks
- Attachment D: 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- Attachment E: 40 CFR 60, Subpart JJJJ - New Standards of Performance for Spark Ignition Internal Combustion Engines
- Attachment F: 40 CFR 63, Subpart DDDDD - National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: [http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl).

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/ideM/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/ideM/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

## DRAFT

If you have any questions on this matter, please contact Amal Agharkar, of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251 at 317-232-8422 or 1-800-451-6027, and ask for extension 2-8422.

Sincerely,

Josiah K. Balogun, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Modified Permit and Technical Support Document

cc: File - Allen County  
Allen County Health Department  
U.S. EPA, Region 5  
Compliance and Enforcement Branch



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## Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**General Motors, LLC - Fort Wayne Assembly  
12200 Lafayette Center Road  
Roanoke, Indiana 46783**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

|   |  |
|---|--|
| Operating Permit No.: T003-33417-00036  |  |
| Issued by/Original Signed by:<br>Chrystal A. Wagner, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: November 13, 2014<br><br>Expiration Date: November 13, 2019 |

First Significant Permit Modification No. 003-34985-00036 issued on February 23, 2015

First Administrative Amendment No. 003-35772-00036 issued on May 12, 2015

Second Significant Permit Modification No.: 003-35825-00036, issued on September 15, 2015

|   |  |
|---|--|
| Third Significant Modification No.: 003-37339-00036   |  |
| Issued by:<br><br>Josiah K. Balogun, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date:<br><br>Expiration Date: November 13, 2019 |

Permit Reviewer: Jack Harmon

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## TABLE OF CONTENTS

|                  |   |           |
|------------------|---|-----------|
| <b>SECTION A</b> | <b>SOURCE SUMMARY .....</b>   | <b>8</b>  |
| A.1              | General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]  |           |
| A.2              | Emission Units and Pollution Control Equipment Summary<br>[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]                                      |           |
| A.3              | Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]   |           |
| A.4              | Part 70 Permit Applicability [326 IAC 2-7-2]  |           |
| <b>SECTION B</b> | <b>GENERAL CONDITIONS.....</b>  | <b>18</b> |
| B.1              | Definitions [326 IAC 2-7-1]   |           |
| B.2              | Permit Term<br>[326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]   |           |
| B.3              | Term of Conditions [326 IAC 2-1.1-9.5]  |           |
| B.4              | Enforceability [326 IAC 2-7-7] [IC 13-17-12]  |           |
| B.5              | Severability [326 IAC 2-7-5(5)]   |           |
| B.6              | Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]  |           |
| B.7              | Duty to Provide Information [326 IAC 2-7-5(6)(E)]   |           |
| B.8              | Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]   |           |
| B.9              | Annual Compliance Certification [326 IAC 2-7-6(5)]  |           |
| B.10             | Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]  |           |
| B.11             | Emergency Provisions [326 IAC 2-7-16]   |           |
| B.12             | Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]  |           |
| B.13             | Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]  |           |
| B.14             | Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]  |           |
| B.15             | Permit Modification, Reopening, Revocation and Reissuance, or Termination<br>[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]     |           |
| B.16             | Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]   |           |
| B.17             | Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]   |           |
| B.18             | Permit Revision Under Economic Incentives and Other Programs<br>[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]                                |           |
| B.19             | Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]  |           |
| B.20             | Source Modification Requirement [326 IAC 2-7-10.5]  |           |
| B.21             | Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]  |           |
| B.22             | Transfer of Ownership or Operational Control [326 IAC 2-7-11]   |           |
| B.23             | Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]   |           |
| B.24             | Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]   |           |
| <b>SECTION C</b> | <b>SOURCE OPERATION CONDITIONS.....</b>   | <b>29</b> |
|                  | <b>Emission Limitations and Standards [326 IAC 2-7-5(1)] .....</b>  | <b>29</b> |
| C.1              | Particulate Emission Limitations For Processes with Process Weight Rates Less<br>Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2] |           |
| C.2              | Opacity [326 IAC 5-1]   |           |
| C.3              | Open Burning [326 IAC 4-1] [IC 13-17-9]   |           |
| C.4              | Incineration [326 IAC 4-2] [326 IAC 9-1-2]  |           |
| C.5              | Fugitive Dust Emissions [326 IAC 6-4]   |           |
| C.6              | Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]  |           |
| C.7              | Stack Height [326 IAC 1-7]  |           |
| C.8              | Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]   |           |
|                  | <b>Testing Requirements [326 IAC 2-7-6(1)].....</b>   | <b>31</b> |
| C.9              | Performance Testing [326 IAC 3-6]   |           |

Permit Reviewer: Jack Harmon

**DRAFT**

|   |           |
|---|-----------|
| <b>Compliance Requirements [326 IAC 2-1.1-11]</b> .....   | <b>31</b> |
| C.10 Compliance Requirements [326 IAC 2-1.1-11]   |           |
| <b>Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]</b> .....  | <b>31</b> |
| C.11 Compliance Monitoring<br>[326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]  |           |
| C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]   |           |
| <b>Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]</b> .....   | <b>32</b> |
| C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]  |           |
| C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]   |           |
| C.15 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]<br>[326 IAC 2-7-6]                               |           |
| C.16 Actions Related to Noncompliance Demonstrated by a Stack Test<br>[326 IAC 2-7-5][326 IAC 2-7-6]                                |           |
| <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b> .....  | <b>35</b> |
| C.17 Emission Statement<br>[326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]                             |           |
| C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]<br>[326 IAC 2-2][326 IAC 2-3]                           |           |
| C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]<br>[326 IAC 2-2][326 IAC 2-3] [40 CFR 64][326 IAC 3-8] |           |
| <b>Stratospheric Ozone Protection</b> .....   | <b>39</b> |
| C.20 Compliance with 40 CFR 82 and 326 IAC 22-1   |           |
| <b>SECTION D.1 FACILITY OPERATION CONDITIONS</b> .....  | <b>40</b> |
| <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b> .....  | <b>40</b> |
| D.1.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology<br>(BACT) [326 IAC 2-2]                       |           |
| D.1.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]  |           |
| D.1.3 Nitrogen Oxides (NO <sub>x</sub> ) [326 IAC 2-2]  |           |
| D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]   |           |
| <b>Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]</b> .....   | <b>41</b> |
| D.1.5 Continuous Emission Monitoring [326 IAC 2-2] [326 IAC 3-5] [40 CFR 60, Subpart<br>Db] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]   |           |
| <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b> .....  | <b>43</b> |
| D.1.6 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]   |           |
| D.1.7 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]  |           |
| <b>SECTION D.2 FACILITY OPERATION CONDITIONS</b> .....  | <b>44</b> |
| <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b> .....  | <b>44</b> |
| D.2.1 PSD BACT Limits [326 IAC 2-2]   |           |
| D.2.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-<br>2]  |           |
| D.2.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]  |           |
| D.2.4 Particulate [326 IAC 6-3-2(d)]  |           |
| D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]   |           |
| <b>Compliance Determination Requirements [326 IAC 2-7-5(1)]</b> .....   | <b>47</b> |
| D.2.6 PSD VOC BACT Limit [326 IAC 2-2] [326 IAC 2-7-5(1)]   |           |
| D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4] [326 IAC 2-7-<br>5(1)]                                       |           |
| D.2.8 PM and VOC Controls [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-2] [326 IAC 2-7-<br>5(1)]                                      |           |

Permit Reviewer: Jack Harmon

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|                    |   |           |
|--------------------|---|-----------|
| D.2.9              | Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-7-5(1)] |           |
|                    | <b>Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]</b>                 | <b>49</b> |
| D.2.10             | Thermal Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                  |           |
| D.2.11             | Parametric Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                         |           |
|                    | <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>            | <b>49</b> |
| D.2.12             | Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]                                 |           |
| D.2.13             | Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]                                      |           |
| <b>SECTION D.3</b> | <b>FACILITY OPERATION CONDITIONS</b>  | <b>51</b> |
|                    | <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>                                    | <b>51</b> |
| D.3.1              | PSD BACT Limits [326 IAC 2-2]   |           |
| D.3.2              | Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]              |           |
| D.3.3              | Particulate Matter (PM) [326 IAC 6-3-2(d)]  |           |
| D.3.4              | Preventive Maintenance Plan [326 IAC 2-7-5(12)]   |           |
|                    | <b>Compliance Determination Requirements [326 IAC 2-7-5(1)]</b>                                 | <b>52</b> |
| D.3.5              | VOC PSD BACT Limit [326 IAC 2-2] [326 IAC 2-7-5(1)]   |           |
| D.3.6              | Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4] [326 IAC 2-7-5(1)]             |           |
| D.3.7              | PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-7-5(1)]            |           |
| D.3.8              | Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-7-5(1)]               |           |
|                    | <b>Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]</b>                 | <b>53</b> |
| D.3.9              | Thermal Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                  |           |
| D.3.10             | Parametric Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                         |           |
| D.3.11             | Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                                    |           |
|                    | <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>            | <b>54</b> |
| D.3.12             | Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]                                 |           |
| D.3.13             | Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]                                      |           |
| <b>SECTION D.4</b> | <b>FACILITY OPERATION CONDITIONS</b>  | <b>56</b> |
|                    | <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>                                    | <b>56</b> |
| D.4.1              | PSD BACT Limits [326 IAC 2-2]   |           |
| D.4.2              | Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]              |           |
| D.4.3              | Particulate Matter (PM) [326 IAC 6-3-2(d)]  |           |
| D.4.4              | Preventive Maintenance Plan [326 IAC 2-7-5(12)]   |           |
|                    | <b>Compliance Determination Requirements [326 IAC 2-7-5(1)]</b>                                 | <b>57</b> |
| D.4.5              | PSD VOC BACT Limit [326 IAC 2-2] [326 IAC 2-7-5(1)]   |           |
| D.4.6              | Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4] [326 IAC 2-7-5(1)]             |           |
| D.4.7              | PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-7-5(1)]            |           |
| D.4.8              | Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-7-5(1)] |           |
|                    | <b>Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]</b>                 | <b>58</b> |
| D.4.9              | Catalytic Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                |           |
| D.4.10             | Parametric Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                         |           |
| D.4.11             | Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                                    |           |



Permit Reviewer: Jack Harmon

**DRAFT**

|  |           |
|--|-----------|
| <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>   | <b>59</b> |
| D.4.12 Record Keeping Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]  |           |
| D.4.13 Reporting Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]   |           |
| <b>SECTION D.5 FACILITY OPERATION CONDITIONS</b>   | <b>61</b> |
| <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>   | <b>61</b> |
| D.5.1 Particulate Matter Limitations for Process Operations [326 IAC 6-3-2]  |           |
| <b>SECTION D.6 FACILITY OPERATION CONDITIONS</b>   | <b>62</b> |
| <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>   | <b>62</b> |
| D.6.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2-3] [326 IAC 8-1-6] |           |
| D.6.2 Opacity Limits [326 IAC 5-1]   |           |
| D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]  |           |
| <b>Compliance Determination Requirements [326 IAC 2-7-5(1)]</b>  | <b>63</b> |
| D.6.4 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-5(1)]   |           |
| <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>   | <b>63</b> |
| D.6.5 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]  |           |
| <b>SECTION D.7 FACILITY OPERATION CONDITIONS</b>   | <b>65</b> |
| <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>   | <b>66</b> |
| D.7.1 PM2.5 PSD Credit Limitations [326 IAC 2-2]   |           |
| D.7.2 PSD Minor VOC Limitations [326 IAC 2-2]  |           |
| D.7.3 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2]   |           |
| D.7.4 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]   |           |
| D.7.5 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]                                       |           |
| D.7.6 Preventive Maintenance Plan [326 IAC 2-7-5(12)]  |           |
| <b>Compliance Determination Requirements [326 IAC 2-7-5(1)]</b>  | <b>67</b> |
| D.7.7 Volatile Organic Compounds (VOC) [326 IAC 2-7-5(1)]  |           |
| D.7.8 PM2.5 and VOC Controls [326 IAC 2-7-5(1)]  |           |
| D.7.9 Testing Requirements[326 IAC 2-7-5(1)]   |           |
| <b>Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]</b>  | <b>70</b> |
| D.7.10 Thermal Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]  |           |
| D.7.11 Parametric Monitoring [326 IAC 2-7-5(3)] [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]                            |           |
| <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>   | <b>70</b> |
| D.7.12 Record Keeping Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]  |           |
| D.7.13 Reporting Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]   |           |
| <b>SECTION D.8 FACILITY OPERATION CONDITIONS</b>   | <b>72</b> |
| <b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>   | <b>75</b> |
| D.8.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]  |           |
| D.8.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 326 IAC 6-2-4]                               |           |
| <b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>   | <b>76</b> |
| D.8.3 Record Keeping Requirements  |           |
| D.8.4 Reporting Requirements   |           |

Permit Reviewer: Jack Harmon

**DRAFT**

|   |           |
|---|-----------|
| <b>SECTION E.1 NSPS .....</b>   | <b>77</b> |
| <b>New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)].....</b>   | <b>77</b> |
| E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1]<br>[40 CFR Part 60, Subpart A]   |           |
| E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating<br>Units NSPS [40 CFR Part 60, Subpart Db]  |           |
| <b>SECTION E.2 NSPS .....</b>   | <b>79</b> |
| <b>New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)].....</b>   | <b>79</b> |
| E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1]<br>[40 CFR Part 60, Subpart A]   |           |
| E.2.2 Standards of Performance for Automobile and Light Duty Truck Surface Coating<br>Operations [40 CFR Part 60, Subpart MM]   |           |
| <b>SECTION E.3 NESHAP .....</b>   | <b>81</b> |
| <b>National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements<br/>        [326 IAC 2-7-5(1)].....</b>   | <b>81</b> |
| E.3.1 General Provisions Relating to National Emission Standards under 40 CFR Part 63<br>[326 IAC 20-1] [40 CFR Part 63, Subpart A]   |           |
| E.3.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63,<br>Subpart III]  |           |
| E.3.3 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR 63,<br>Subpart MMMM]   |           |
| <b>SECTION E.4 NSPS .....</b>   | <b>84</b> |
| <b>New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)].....</b>   | <b>84</b> |
| E.4.1 General Provisions Relating to New Source Performance Standards [40 CFR 60,<br>Subpart A] [326 IAC 12-1]  |           |
| E.4.2 New Standards of Performance for Spark Ignition Internal Combustion Engines<br>NSPS [40 CFR 60, Subpart JJJJ]   |           |
| <b>SECTION E.5 NESHAP .....</b>   | <b>85</b> |
| <b>National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements<br/>        [326 IAC 2-7-5(1)].....</b>   | <b>85</b> |
| E.5.1 General Provisions Relating to National Emission Standards for Hazardous Air<br>Pollutants under 40 CFR Part 63 [40 CFR 63, Subpart A] [326 IAC 20-1]                   |           |
| E.5.2 National Emissions Standards for Hazardous Air Pollutants for Stationary<br>Reciprocating Internal Combustion Engines NESHAP [40 CFR 63, Subpart ZZZZ]                  |           |
| <b>SECTION E.6 NESHAP .....</b>   | <b>86</b> |
| <b>National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements<br/>        [326 IAC 2-7-5(1)].....</b>   | <b>86</b> |
| E.6.1 General Provisions Relating to National Emission Standards for Hazardous Air<br>Pollutants under 40 CFR Part 63 [40 CFR 63, Subpart A] [326 IAC 20-1]                   |           |
| E.6.2 National Emissions Standards for Hazardous Air Pollutants for Industrial,<br>Commercial, and Institutional Boilers NESHAP [40 CFR 63, Subpart DDDDD] [326<br>IAC 20-95] |           |
| <b>Attachment A</b> -40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-<br>Institutional Steam Generating Units                                      |           |
| <b>Attachment B</b> -40 CFR 60, Subpart MM - Standards of Performance for Automobile and Light Duty<br>Truck Surface Coating  |           |
| <b>Attachment C</b> -40 CFR 63, Subpart III - Surface Coating of Automobiles and Light-Duty Trucks  |           |
| <b>Attachment D</b> -40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants  |           |

Permit Reviewer: Jack Harmon

**DRAFT**

for Stationary Reciprocating Internal Combustion Engines

**Attachment E** - 40 CFR 60, Subpart JJJJ - New Standards of Performance for Spark Ignition Internal Combustion Engines

**Attachment F** - 40 CFR 63, Subpart DDDDD - National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers

Permit Reviewer: Jack Harmon

**DRAFT**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary automobile and light duty truck assembly plant.

|                              |   |
|------------------------------|---|
| Source Address:              | 12200 Lafayette Center Road, Roanoke, Indiana 46783 |
| General Source Phone Number: | 260-673-2345  |
| SIC Code:                    | 3711  |
| County Location:             | Allen   |
| Source Location Status:      | Attainment for all criteria pollutants              |
| Source Status:               | Part 70 Operating Permit Program                    |
|                              | Major Source, under PSD Rules                       |
|                              | Major Source, Section 112 of the Clean Air Act      |
|                              | Not 1 of 28 Source Categories                       |

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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This stationary source consists of the following emission units and pollution control devices:

(a) Facility-wide natural gas usage, including combustion units described as follows:

- (1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

- (2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

- (3) Fifty-six (56) space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and

- (4) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner heat input rated at 12.6 MMBtu per hour.

Permit Reviewer: Jack Harmon

**DRAFT**

- (b) One (1) ELPO Dipping System, identified as 006, constructed in 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;  
  
Under 40 CFR 60, Subpart MM, this is considered an affected facility.  
  
Under 40 CFR 63, Subpart IIII, this is considered an affected facility.
- (c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;  
  
Under 40 CFR 63, Subpart IIII, this unit is considered an affected facility.
- (d) One (1) Primer Surfacer System, identified as 010, constructed in 1994 and modified in 2010, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;  
  
Under 40 CFR 60, Subpart MM, this is considered an affected facility.  
  
Under 40 CFR 63, Subpart IIII, this is considered an affected facility.
- (e) One (1) Topcoat System, identified as 008, constructed in 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;  
  
Under 40 CFR 60, Subpart MM, this is considered an affected facility.  
  
Under 40 CFR 63, Subpart IIII, this is considered an affected facility.
- (f) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in 1985, using no controls, and exhausting to stacks 07 and 08;  
  
Under 40 CFR 63, Subpart IIII, this is considered an affected facility.
- (g) One (1) Final Repair Operation, identified as 012, constructed in 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;  
  
Under 40 CFR 63, Subpart IIII, this is considered an affected facility.
- (h) One (1) Maintenance Paint Operation, identified as 013, constructed in 1985, using no control, and exhausting to stack 10;  
  
Under 40 CFR 63, Subpart IIII, this is considered an affected facility.
- (i) One (1) Gasoline Fill Operation, identified as 014, constructed in 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons. The vehicles being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control; and

Permit Reviewer: Jack Harmon

**DRAFT**

- (j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under 40 CFR 60, Subpart JJJJ, these four (4) generators are considered affected facilities.

Under 40 CFR 63, Subpart ZZZZ, these four (4) generators are considered affected facilities.

- (k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

- (1) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, approved in 2015 for construction, using three (3) natural gas-fired regenerative thermal oxidizers (RTOs), each with a maximum heat input capacity of 3.0 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.
- (2) Miscellaneous Sealers and Adhesives application, identified as 022, approved in 2015 for construction, using no controls, and exhausting to stacks 07 and 08.
- (3) Miscellaneous natural gas-fired equipment, identified as 021, with no controls.
  - (i) Five (5) ASH Paint Heaters, each with a maximum heat input capacity of 6.0 MMBtu/hr, all venting inside the building.
  - (ii) One (1) ASH Paint Heater with a maximum heat input capacity of 8.0 MMBtu/hr, venting inside the building.
  - (iii) Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr, all venting through stack ID 21a.
  - (iv) One (1) Locker Room Heater, located at the paint area, with a maximum heat input capacity of 0.875 MMBtu/hr, venting inside the building.
  - (v) Four (4) Door Heaters, located at the paint area, each with a maximum heat input capacity of 0.48 MMBtu/hr, all venting inside the building.
  - (vi) Eight (8) Unit Heaters, located at the paint area, each with a maximum heat input capacity of 0.058 MMBtu/hr, all venting inside the building.
  - (vii) Fourteen (14) ELPO Oven Convection Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
  - (viii) Twelve (12) ELPO Oven Radiant Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
  - (ix) One (1) ELPO Oven Radiant Zone 13, with a maximum heat input capacity of 3.0 MMBtu/hr, venting through stack 020.

Permit Reviewer: Jack Harmon

## DRAFT

- (x) Fifty-nine (59) Dock Door Heaters, located at the Body Shop and Material Room, each with a maximum heat input capacity of 0.40 MMBtu/hr, all venting inside the building.
  - (xi) Thirty-nine (39) ASH Heaters, located at the Body Shop and Material Room, each with a maximum heat input capacity of 0.972 MMBtu/hr, all venting inside the building.
- (l) Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.35 MMBtu/hr, and exhausting indoors.
- (m) Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.125 MMBtu/hr, and exhausting indoors.
- (n) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (o) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (p) Forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:
  - (1) Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (2) Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (3) Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (4) Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (5) Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (6) Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (7) Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

Permit Reviewer: Jack Harmon

**DRAFT**

- (8) Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
- (9) Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
- (10) Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
- (11) Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.
- (12) Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.
- (13) Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219 MMBtu/hr.
- (14) Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
- (15) Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.
- (16) Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.700 MMBtu/hr.
- (17) Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.
- (18) Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.
- (19) Bodyshop ACU #5, approved in 2016 for construction, with a maximum heat input capacity of 0.228 MMBtu/hr.
- (20) Bodyshop ACU #6, approved in 2016 for construction, with a maximum heat input capacity of 0.258 MMBtu/hr.
- (21) Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (22) Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 2.652 MMBtu/hr.



Permit Reviewer: Jack Harmon

## DRAFT

- (23) Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (24) Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (25) Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (26) Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (27) Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (28) Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (29) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (30) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (31) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.394 MMBtu/hr.
- (32) Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.628 MMBtu/hr.
- (33) 216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (34) 216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (35) 216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (36) 216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.

Permit Reviewer: Jack Harmon

**DRAFT**

- (37) 217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.
- (38) 217 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.
- (39) 217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.
- (40) 217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.
- (41) 241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.071 MMBtu/hr.
- (42) 241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.
- (43) 243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.456 MMBtu/hr.
- (44) 243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source has the following insignificant activities, as defined in 326 IAC 2-7-1(21).

- (a) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2].
- (b) One (1) Body Shop - Grinding and Machining, associated with the T1 Full Size Truck Project, approved in 2015 for construction.
- (c) One (1) Pre-Treatment System, associated with the T1 Full Size Truck Project, approved in 2015 for construction.
- (d) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 7 (automatic transmission fluid), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

Under 40 CFR 63, Subpart IIII, tanks 1, 2, and the two waste purge solvent tank are considered affected facilities. Tank 7 is not subject to 40 CFR 63, Subpart IIII.

Permit Reviewer: Jack Harmon

**DRAFT**

- (e) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (f) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (g) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].
- (i) Closed loop heating and cooling systems.
- (j) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (k) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
- (l) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].
- (o) Paved and unpaved roads and parking lots with public access.
- (p) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (q) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (r) On-site fire and emergency response training approved by the department.
- (s) Diesel generator not exceeding 1600 horsepower.
- (t) Other emergency equipment as follows: Stationary fire pumps.
- (u) A laboratory as defined in 326 IAC 2-7(21)(G).
- (v) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

Permit Reviewer: Jack Harmon

**DRAFT**

- (w) Other activities or categories with emissions less than insignificant thresholds:
- (1) Fluorocarbon R-134A Storage Tanks (Main Plant);
  - (2) Sulfuric Acid Storage Tank (Wastewater Treatment Plant);
  - (3) Grinding Operations (Light Duty Truck Body Shop) [326 IAC 6-3-2];
  - (4) Pre-phosphate Washers (Light Duty Truck Assembly Line);
  - (5) Multi-stage Phosphate Systems (Light Duty Truck Assembly Line);
  - (6) Feather Dusters (Light Duty Truck Assembly Line);
  - (7) Vehicle washers prior to shipping (Light Duty Truck Assembly Line);
  - (8) Spot sanding and painting (Light Duty Truck Assembly Line);
  - (9) Bulk Storage Material Transferring Equipment; i.e. pumps, valves, pipes, flanges, etc. (Light Duty Truck Assembly Line);
  - (10) Vehicle Fluid Fill Operations; i.e. engine oil, windshield, transmission, engine coolant, power steering fluid, brake fluid, and air conditioning refrigerant (Light Duty Truck Assembly Line);
  - (11) Engine Subassembly Lines (Light Duty Truck Assembly Line);
  - (12) Radiator Subassembly Lines (Light Duty Truck Assembly Line);
  - (13) Trim Assembly Lines (Light Duty Truck Assembly Line);
  - (14) Maintenance Shops (Light Duty Truck Assembly Line);
  - (15) Gasoline/Diesel Tank Assembly Areas (Light Duty Truck Assembly Line);
  - (16) Mechanical Repair Stalls (Light Duty Truck Assembly Line);
  - (17) Final Vehicle Inspection (Care Building);
  - (18) Wastewater Treatment Plant;
  - (19) Storage Tanks;
  - (20) Body Washers;
  - (21) Mig Welding [326 IAC 6-3-2]; and
  - (22) Diesel Pumps.
- (x) Twelve (12) parts washers that use water-based material containing no VOC or HAPs.

**A.4 Part 70 Permit Applicability [326 IAC 2-7-2]**

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

Permit Reviewer: Jack Harmon

**DRAFT**

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

Permit Reviewer: Jack Harmon

**DRAFT**

## **SECTION B**

## **GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-7-1]**

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### **B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]**

- (a) This permit, T003-33417-00036, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### **B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### **B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]**

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### **B.5 Severability [326 IAC 2-7-5(5)]**

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]**

This permit does not convey any property rights of any sort or any exclusive privilege.

### **B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]**

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

Permit Reviewer: Jack Harmon

**DRAFT**

**B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]**

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- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

Permit Reviewer: Jack Harmon

**DRAFT**

- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]**

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- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance



Permit Reviewer: Jack Harmon

**DRAFT**

causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Emergency Provisions [326 IAC 2-7-16]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality,  
Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

Permit Reviewer: Jack Harmon

**DRAFT**

- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

**B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]**

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- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable

Permit Reviewer: Jack Harmon

**DRAFT**

requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]**

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- (a) All terms and conditions of permits established prior to T003-33417-00036 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

**B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

Permit Reviewer: Jack Harmon

**DRAFT**

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
**[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the

Permit Reviewer: Jack Harmon

**DRAFT**

document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]**

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- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.18 Permit Revision Under Economic Incentives and Other Programs  
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]**

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- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]**

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

Permit Reviewer: Jack Harmon

**DRAFT**

- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

Permit Reviewer: Jack Harmon

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- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.20 Source Modification Requirement [326 IAC 2-7-10.5]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

**B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Permit Reviewer: Jack Harmon

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Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]**

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For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.



Permit Reviewer: Jack Harmon

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**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

**C.7 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

Permit Reviewer: Jack Harmon

**DRAFT**

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

Permit Reviewer: Jack Harmon

**DRAFT**

- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-7-6(1)]**

#### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]**

#### **C.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]**

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- (a) For new units:  
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented within 90 days of the date of initial start-up.
- (b) For existing units:

Permit Reviewer: Jack Harmon

**DRAFT**

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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**C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]**

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**C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

Permit Reviewer: Jack Harmon

**DRAFT**

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

**C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

**C.15 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]  
[326 IAC 2-7-6]**

- (I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:
  - (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
  - (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
    - (1) initial inspection and evaluation;
    - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
    - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
  - (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
    - (1) monitoring results;
    - (2) review of operation and maintenance procedures and records; and/or
    - (3) inspection of the control device, associated capture system, and the process.
  - (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
  - (e) The Permittee shall record the reasonable response steps taken.
- (II)
  - (a) CAM Response to excursions or exceedances.
    - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its

Permit Reviewer: Jack Harmon

**DRAFT**

normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (d) Elements of a QIP:  
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
  - (1) Failed to address the cause of the control device performance problems;  
or
  - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

Permit Reviewer: Jack Harmon

**DRAFT**

- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) CAM recordkeeping requirements.
  - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
  - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Permit Reviewer: Jack Harmon

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Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]  
[326 IAC 2-2][326 IAC 2-3]

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:
    - (A) A description of the project.



Permit Reviewer: Jack Harmon

**DRAFT**

- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
  - (i) Baseline actual emissions;
  - (ii) Projected actual emissions;
  - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
  - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
  - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
  - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]  
[326 IAC 2-2][326 IAC 2-3] [40 CFR 64][326 IAC 3-8]

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

Permit Reviewer: Jack Harmon

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A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

Permit Reviewer: Jack Harmon

**DRAFT**

- (f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

Permit Reviewer: Jack Harmon

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## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(14)]:

(a) Facility-wide natural gas usage, including combustion units described as follows:

- (1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

- (2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

- (3) Fifty-six (56) space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and

- (4) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner heat input rated at 12.6 MMBtu per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Permit PSD (02) No. 1575, issued on November 30, 1984; CP (003) No. 2000, issued on September 9, 1991; CP No. 003-2524, issued on October 13, 1992; and 326 IAC 2-2 PSD BACT:

- (a) For Boiler 004:  
NO<sub>x</sub> emissions shall not exceed 0.098 lb/MMBtu input from the combustion of natural gas. Flue gas recirculation and low NO<sub>x</sub> burners are considered PSD BACT for this emission unit.
- (b) For Boiler 005:  
NO<sub>x</sub> emissions shall not exceed 0.098 lb/MMBtu from the combustion of natural gas.

Permit Reviewer: Jack Harmon

**DRAFT**

**D.1.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]**

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Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the 228 and 228 million BTU/hour boilers, identified as Boilers 004 and 005, shall be limited as follows:

- (a) Boiler 004 shall be limited to 0.22 pound per million BTU heat input.
- (b) Boiler 005 shall be limited to 0.20 pound per million BTU heat input.

**D.1.3 Nitrogen Oxides (NO<sub>x</sub>) [326 IAC 2-2]**

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In order to render the requirements of 326 IAC 2-2 not applicable, and pursuant to SSM No. 003-12830-00036, issued March 5, 2001, the Permittee shall comply with the following:

- (a) NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas.
- (b) The natural gas usage for the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed six hundred ten (610) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) to less than forty (40) tons per year and render 326 IAC 2-2 not applicable.

**D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

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A Preventive Maintenance Plan is required for Boilers 004 and 005. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

**D.1.5 Continuous Emission Monitoring [326 IAC 2-2] [326 IAC 3-5] [40 CFR 60, Subpart Db] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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- (a) Pursuant to 326 IAC 2-2, 326 IAC 3-5, and 326 IAC 12, the Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment and shall continuously monitor and record the following parameters to demonstrate compliance with Condition D.1.1 and D.1.2:
  - (1) Nitrogen oxide concentration for Boilers 004 and 005, and
  - (2) Opacity for Boilers 004 and 005, unless the Permittee uses one of the following to meet compliance monitoring requirements:
    - (A) Boiler 004 and Boiler 005 use a PM CEMS to monitor PM emissions; or
    - (B) Boiler 004 and Boiler 005 burn only liquid (excluding residual oil) or gaseous fuels with potential SO<sub>2</sub> emissions of 0.060 lb/MMBtu or less and do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions.
    - (C) Boiler 004 and Boiler 005 do not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions

Permit Reviewer: Jack Harmon

## DRAFT

of CO to the atmosphere from Boiler 004 and Boiler 005 are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. The Permittee shall demonstrate compliance by the following:

- (i) A CO CEM shall be installed, certified, maintained, and operated in accordance with Condition D.1.6(c) and (d).
  - (ii) The Permittee shall calculate the one (1) hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the boiler. The twenty-four (24) hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.
  - (iii) The Permittee shall evaluate the preceding twenty-four (24) hour average CO emission level each steam generating unit operating day excluding periods of boiler startup, shutdown, or malfunction. If the twenty-four (24) hour average CO emission level is greater than 0.15 lb/MMBtu, the Permittee shall initiate an investigation of the relevant equipment and control systems within twenty-four (24) hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the twenty-four (24) hour average CO emission level to 0.15 lb/MMBtu or less.
  - (iv) The Permittee shall record the CO measurements and calculations performed and any corrective actions taken. The record of corrective action taken must include the date and time during which the twenty-four (24) hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.
- (b) The continuous monitoring systems have been installed and operational prior to conducting the performance tests. A monitoring protocol has been performed in accordance with the applicable procedures under 40 CFR 60, Appendix B, Performance Specification 1 and 326 IAC 3-5.
  - (c) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.
  - (d) In instances of CEM downtime, compliance with the NO<sub>x</sub> emission limits established in Condition D.1.1 and D.1.2 shall be determined by the use of the appropriate AP-42 emission factors. Compliance with the particulate emission limits contained in Conditions D.1.1 and D.1.2 shall be determined by burning clean fuels such as natural gas or landfill gas.
  - (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart Db.

Permit Reviewer: Jack Harmon

**DRAFT**

## **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **D.1.6 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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- (a) To document the compliance status with Conditions D.1.1, D.1.2, D.1.3 and D.1.6, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the NO<sub>x</sub> and opacity emission limits established in Conditions D.1.1, D.1.2, and D.1.3.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Heat input for Boilers 004 and 005;
  - (3) Amount of natural gas usage for Boilers 004 and 005 and amount of landfill gas usage for Boiler 004;
  - (4) Output of the NO<sub>x</sub> continuous emissions monitoring systems on Boilers 004 and 005 and record keeping required pursuant to 326 IAC 3-5-6;
- (b) To document the compliance status with Condition D.1.3, the Permittee shall maintain records of the natural gas usage to the twenty (20) natural gas fired burners (MOD 1 - MOD 10) monthly.
- (c) In the event that a breakdown of a continuous emission monitoring equipment system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligation with regard to the records required by this condition.

### **D.1.7 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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- (a) A semi-annual summary of the information to document the compliance status with Conditions D.1.3 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the semi-annual period being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) The Permittee shall submit NO<sub>x</sub> CEM performance audit reports pursuant to 326 IAC 3-5-5(e).

Permit Reviewer: Jack Harmon

**DRAFT**

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(14)]:

- (b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;
- (f) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
- (g) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls; and
- (h) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 PSD BACT Limits [326 IAC 2-2]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (Prevention of Significant Deterioration) and in conjunction with Conditions D.3.1 and D.4.1, the total VOC usage shall be limited such that the source's VOC potential to emit from the surface coating operations and cleaning operations, including ELPO Dipping System (006), Underbody Robotic Sealer, identified as Stone Guard Sealer, Primer Surfacer System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013), does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

#### D.2.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from ELPO Dipping System (006) and Final Repair Operation (012) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed:
  - (1) 0.23 kilograms per liter of coating (1.9 pounds per gallon), excluding water, for the ELPO Dipping System (006).
  - (2) 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, for the Final Repair Operation (012).
- (b) Pursuant to 326 IAC 8-1-2(a), the emission limitations specified in D.2.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings and/or daily averaging.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), when using an equivalent emission limitation to comply with Condition D.2.2(a)(1), the VOC emissions from the ELPO Dipping System (006)



Permit Reviewer: Jack Harmon

**DRAFT**

thermal oxidizers shall be limited to no greater than 2.6 pounds per gallon solids deposited. Compliance with the equivalent emission limitation shall be determined according to the following equation:

$$E = \frac{L}{[(1 - (L/D)) \cdot T]}$$

Where:

E = Actual emissions in pounds of VOC per gallon of coating solids deposited

L = Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and nonphotochemically reactive hydrocarbons

D = Actual density of the VOC in the coating in pounds per gallon of VOC

- (d) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.2.2(a)(1), the overall efficiency of the ELPO Dipping System (006) thermal oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Where:

V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied, where  $E = L / [1 - (L/D)]$ , and

L = Applicable emission limit in pounds of VOC per gallon of coating.

D = Density of VOC in coating in pounds per gallon of VOC.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance; and

O = Equivalent overall efficiency of the capture system and control device as a percentage.

#### D.2.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator for the Miscellaneous Sealers and Adhesives (009) and Underbody Robotic Sealer Operation (Stone Guard Sealer).

Permit Reviewer: Jack Harmon

**DRAFT**

- (b) Pursuant to 326 IAC 8-1-2(a) the emission limitations specified in D.2.3(a), shall be achieved through one or any combination of higher solids (low solvent) coatings, water borne coatings and/or an equivalent emission limitation.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), when using an equivalent emission limitation to comply with Condition D.2.3(a), the VOC emissions from the Miscellaneous Sealers and Adhesives (009) and the Underbody Robotic Sealer Operation (Stone Guard Sealer) shall be limited to no greater than 1.34 kilograms of VOC per liter solids deposited (11.2 pounds per gallon solids deposited) based on an actual measured transfer efficiency greater than 60%. Compliance with the equivalent emission limitation shall be determined according to the following equation:

$$E = \frac{L}{[(1 - (L/D)) \cdot T]}$$

Where:

- E = Actual emissions in pounds of VOC per gallon of coating solids deposited
- L = Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and nonphotochemically reactive hydrocarbons
- D = Actual density of the VOC in the coating in pounds per gallon of VOC
- T = Actual measured transfer efficiency

- (d) Pursuant to 326 IAC 8-2-9(f), the Permittee shall use the following work practices to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, clean materials, and waste materials, including, but not limited to, the following:
- (1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
  - (2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
  - (3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
  - (4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
  - (5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

#### D.2.4 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the Final Repair Operation (012) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Permit Reviewer: Jack Harmon

**DRAFT**

#### D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the ELPO Dipping System (006) and its control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

#### Compliance Determination Requirements [326 IAC 2-7-5(1)]

#### D.2.6 PSD VOC BACT Limit [326 IAC 2-2] [326 IAC 2-7-5(1)]

Compliance with the VOC PSD BACT limit in Condition D.2.1 shall be determined within 30 days of the end of each month based on the following:

For ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013):

VOC emissions (tons, 12 consecutive months) = VOC emissions in previous eleven (11) months, tons + monthly VOC usage (uncontrolled), tons + monthly VOC emissions (after controls), tons

where:

monthly VOC emissions (after controls), tons = monthly VOC input (tons) x (1 - overall control efficiency/100);

where:

overall control efficiency (%) = capture efficiency (%) x destruction efficiency (%)

#### D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4] [326 IAC 2-7-5(1)]

(a) Compliance with the VOC contents contained in Conditions D.2.2 and D.2.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) When daily averaging is used to comply with the emission limitations in Condition D.2.2(a), one of the following equations shall be used to determine the volume weighted average of coatings on a daily basis:

(1) When a thermal oxidizer is used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

$$A = \frac{\sum_{i=1}^n C_i U_i (1 - (CE \cdot DRE))}{\sum_{i=1}^n U_i (1 - D_i)}$$

Where:

A = daily volume weighted average, lb VOC/gal, less water

C = VOC content of coating i, lb VOC/gal, less water

U = actual coating i usage, gal/day

Permit Reviewer: Jack Harmon

**DRAFT**

D = coating i volume % water

n = no. of coatings used during the day

CE = capture efficiency of the emission system vented to the thermal oxidizer

DRE = destruction/removal efficiency of thermal oxidizer

- (2) When a thermal oxidizer is not used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

$$A = \frac{\sum_{i=1}^n C_i U_i}{\sum_{i=1}^n U_i}$$

Where:

A = daily volume weighted average, lb VOC/gal, less water

C = VOC content of coating i, lb VOC/gal, less water

U = actual coating i usage, gal/day

n = no. of coatings used during the day

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**D.2.8 PM and VOC Controls [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-2] [326 IAC 2-7-5(1)]**

- (a) Pursuant to 326 IAC 6-3-2(d), the Permittee shall operate the dry filters at all times the Final Repair Operation (012) is in operation.
- (b) Pursuant to 326 IAC 8-1-2(a) and in order to ensure compliance with Conditions D.2.1 and/or D.2.2, the Permittee shall operate the thermal incinerators #1 - #3 for the ELPO Dipping System (006) at all times the processes that they are controlling are in operation, if the abatement credit is used to show compliance with Conditions D.2.1 and/or D.2.2.

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**D.2.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-7-5(1)]**

The following facilities are required to stack test, when used to show compliance with Conditions D.2.1 and/or D.2.2, as follows:

- (a) Not later than two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for one (1) of the thermal incinerators, #1 - #3, controlling the ELPO Dipping System (006) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on an incinerator shall not be repeated until each one has been tested.
- (b) The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control devices are used to show compliance with Conditions D.2.1 and/or D.2.2. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Permit Reviewer: Jack Harmon

**DRAFT**

## **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

### **D.2.10 Thermal Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

The following requirements shall apply only if the VOC reduction credit for the incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2:

- (a) A continuous monitoring system shall be calibrated and maintained on each thermal and catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.1 and/or D.2.2.
- (c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

### **D.2.11 Parametric Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

The following requirements shall apply only if the VOC reduction credit for the thermal incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2:

The system that continuously monitors proper operation of the thermal incinerators shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

## **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **D.2.12 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- (a) To document the compliance status with Conditions D.2.1, D.2.2, D.2.3, D.2.6, D.2.7, D.2.10, and D.2.11, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.1, D.2.2, and D.2.3.
  - (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

Permit Reviewer: Jack Harmon

**DRAFT**

- (3) A log of the dates of use of each coating.
- (4) A log of when the thermal incinerators are used to demonstrate compliance with an emission limitation.
- (5) The calculated daily volume weighted average in pounds of VOC per gallon, less water, if applicable.
- (6) The monthly cleanup solvent usage.
- (7) The total VOC usage and emissions for each month.
- (8) During periods when the thermal incinerators are used to demonstrate compliance with an emission limitation:
  - (A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
  - (B) Records of the dates of any thermal incinerator system alarms and corrective actions taken.
- (b) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligation with regard to the records required by this condition.

**D.2.13 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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A quarterly summary of the information to document the compliance status with Condition D.2.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

Permit Reviewer: Jack Harmon

**DRAFT**

### SECTION D.3

### FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(14)]:

- (d) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

##### D.3.1 PSD BACT Limits [326 IAC 2-2]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (Prevention of Significant Deterioration) and in conjunction with Conditions D.2.1 and D.4.1, the total VOC usage shall be limited such that the source's VOC potential to emit from the surface coating and cleaning operations, including ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013), does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

##### D.3.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

- (a) Pursuant to 326 IAC 8-2-2(b)(2) (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from Primer Surfacer System (010) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water.
- (b) Pursuant to 326 IAC 8-1-2(a), the emission limitation specified in D.3.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), VOC emissions as allowed in D.3.2(a)(2) from the Primer Surfacer System (010) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.
- (d) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.3.2(a), the overall efficiency of the Primer Surfacer System (010) thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Where:

Permit Reviewer: Jack Harmon

**DRAFT**

V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and

O = Equivalent overall efficiency of the capture system and control device as a percentage.

$$O = (6.50 - 5.1) / 6.5 \times 100 = 21.5\%$$

The overall efficiency of the thermal oxidizer shall be no less than 21.5%.

**D.3.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]**

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Pursuant to 326 IAC 6-3-2(d), particulate from Primer Surfacer System (010) shall be controlled by a dry particulate filter, water wash, or an equivalent control device at all times that the process is operating. The Permittee shall operate the control device in accordance with manufacturer's specifications.

**D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

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A Preventive Maintenance Plan is required for the Primer Surfacer System (010), and its control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-7-5(1)]**

**D.3.5 VOC PSD BACT Limit [326 IAC 2-2] [326 IAC 2-7-5(1)]**

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Compliance with the VOC PSD BACT limit in Condition D.3.1 shall be determined within 30 days of the end of each month based on the following:

For ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013):

VOC emissions (tons, 12 consecutive months) = VOC emissions in previous eleven (11) months, tons + monthly VOC usage (uncontrolled), tons + monthly VOC emissions (after controls), tons

where:

VOC emissions (after controls), tons = VOC input (tons) x (1 - overall control efficiency/100);

where:

overall control efficiency (%) = capture efficiency (%) x destruction efficiency (%)

**D.3.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4] [326 IAC 2-7-5(1)]**

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Compliance with the VOC contents contained in Condition D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**D.3.7 PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-7-5(1)]**

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Permit Reviewer: Jack Harmon

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- (a) Pursuant to 326 IAC 6-3-2(d), the Permittee shall operate the water wash system at all times the Primer Surfacers System (010) is in operation.
- (b) Pursuant to 326 IAC 8-1-2(a) and in order to ensure compliance with Conditions D.3.1 and D.3.2, the Permittee shall operate the regenerative thermal oxidizer for the Primer Surfacers System (010) at all times the processes that it controls are in operation, if the abatement credit is used to show compliance with Conditions D.3.1 and/or D.3.2.

**D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-7-5(1)]**

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The following facilities are required to stack test when used to show compliance with Conditions D.3.1 and/or D.3.2 as follows:

- (a) Not later than two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for the regenerative thermal oxidizer controlling the Primer Surfacers System (010) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (b) The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control device is used to show compliance with Conditions D.3.1 and/or D.3.2. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

**D.3.9 Thermal Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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The following requirements shall apply only if the regenerative thermal oxidizer is used to show compliance with Conditions D.3.1 and/or D.3.2:

- (a) A continuous monitoring system shall be calibrated and maintained on the regenerative thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.3.1 and/or D.3.2.
- (c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

**D.3.10 Parametric Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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The following requirements shall apply only if the VOC reduction credit for the thermal oxidizer is used to show compliance with Conditions D.3.1 and/or D.3.2:

Permit Reviewer: Jack Harmon

**DRAFT**

The system that continuously monitors proper operation of the thermal oxidizer shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

**D.3.11 Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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- (a) The condition of the Primer Surfacers System (010) waterwash system shall be monitored through the use of alarms on the water pumps that feed the systems. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.
- (b) Semi-annual inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.3.12 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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- (a) To document the compliance status with Conditions D.3.1, D.3.2, D.3.5, D.3.6, D.3.9, and D.3.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1 and D.3.2.
  - (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.
  - (4) A log of when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation.
  - (5) The monthly cleanup solvent usage.
  - (6) The total VOC usage and emissions for each month.
  - (7) During periods when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation:
    - (A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

Permit Reviewer: Jack Harmon

**DRAFT**

- (B) Records of the dates of any thermal oxidizer system alarms and corrective actions taken.
- (b) To document the compliance status with Conditions D.3.3 and D.3.11, the Permittee shall maintain records of the dates of any water wash alarms and corrective actions taken and shall maintain a log of semi-annual inspections.
- (c) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligation with regard to the record required by this condition.

**D.3.13 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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A quarterly summary of the information to document the compliance status with Condition D.3.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

Permit Reviewer: Jack Harmon

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## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(14)]:

- (e) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.4.1 PSD BACT Limits [326 IAC 2-2]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (Prevention of Significant Deterioration) and in conjunction with Conditions D.2.1 and D.3.1, the total VOC usage shall be limited such that the source's VOC potential to emit from the surface coating and cleaning operations, including ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013), does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

#### D.4.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from Topcoat System (008) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water.
- (b) Pursuant to 326 IAC 8-1-2(a), the emission limitation specified in D.4.2(a), shall be achieved through one or any combination of catalytic incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), VOC emissions as allowed in D.4.2(a) from the Topcoat System (008) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.
- (d) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.4.2(a), the overall efficiency of the Topcoat System (008) catalytic oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Permit Reviewer: Jack Harmon

**DRAFT**

Where:

- V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

**D.4.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]**

Pursuant to 326 IAC 6-3-2(d), particulate from the Topcoat System (008) shall be controlled by a dry particulate filter, water wash, or an equivalent control device at all times that the process is operating. The Permittee shall operate the control device in accordance with manufacturer's specifications.

**D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for the Topcoat System (008), and its control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-7-5(1)]**

**D.4.5 PSD VOC BACT Limit [326 IAC 2-2] [326 IAC 2-7-5(1)]**

Compliance with Condition D.4.1 shall be determined within 30 days of the end of each month based on the total volatile organic compound emissions for coating and cleaning operations per month, and adding the result to the calculated VOC emissions from the previous eleven (11) months.

**D.4.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4] [326 IAC 2-7-5(1)]**

Compliance with the VOC contents contained in Condition D.4.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**D.4.7 PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-7-5(1)]**

- (a) Pursuant to 326 IAC 6-3-2(d), the Permittee shall operate the water wash at all times the Topcoat System (008) is in operation.
- (b) Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the catalytic oxidizers #1 - #10 for the Topcoat System (008) at all times the processes that they are controlling are in operation, if the abatement credit is used to show compliance with Conditions D.4.1 and/or D.4.2.

**D.4.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-7-5(1)]**

The following facilities are required to stack test, when the oxidizer abatement credit is used to show compliance with Conditions D.4.1 and/or D.4.2, as follows:

Permit Reviewer: Jack Harmon

**DRAFT**

- (a) Not later than two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC destruction efficiency for two (2) of the 7.5 MMBtu/hr catalytic oxidizers and one (1) of the 9.5 MMBtu/hr catalytic oxidizers controlling the Topcoat System (008) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on a catalytic oxidizer shall not be repeated until each one has been tested.
- (b) The Permittee shall use the determined destruction efficiencies from the most recent performance test for determining compliance when the control devices are used to show compliance with Conditions D.4.1 and/or D.4.2. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

##### **D.4.9 Catalytic Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

The following requirements shall apply only if the VOC reduction credit from the catalytic oxidizers is used to show compliance with Conditions D.4.1 and/or D.4.2:

- (a) A temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed. A continuous monitoring system shall be calibrated and maintained on each catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.4.1 and/or D.4.2.
- (c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

##### **D.4.10 Parametric Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

The following requirements shall apply only if the VOC reduction credit for the catalytic oxidizers is used to show compliance with Conditions D.4.1 and/or D.4.2:

The system that continuously monitors proper operation of the catalytic oxidizers shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

##### **D.4.11 Monitoring [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- (a) The condition of the Topcoat System (008) waterwash system shall be monitored through the use of alarms on the water pumps that feed the systems. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the

Permit Reviewer: Jack Harmon

**DRAFT**

reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

- (b) Semi-annual inspections shall be performed of the coating emissions from stack 04 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### D.4.12 Record Keeping Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- (a) To document the compliance status with Conditions D.4.1, D.4.2, D.4.5, D.4.6, D.4.9, and D.4.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1 and D.4.2.
  - (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.
  - (4) A log of when the catalytic oxidizers are used to demonstrate compliance with an emission limitation.
  - (5) The monthly cleanup solvent usage.
  - (6) The total VOC usage and emissions for each month.
  - (7) During periods when the catalytic oxidizers are used to demonstrate compliance with an emission limitation:
    - (A) The continuous temperature records (on a 3-hour average basis) for the catalytic oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
    - (B) Records of the dates of any catalytic oxidizer system alarms and corrective actions taken.
- (b) To document the compliance status with Conditions D.4.3 and D.4.11, the Permittee shall maintain records of the dates of any water wash alarms and corrective actions taken and shall maintain a log of semi-annual inspections.
- (c) The Permittee shall monitor and record the annual VOC emissions from the Topcoat that could result in a significant VOC emissions increase as a result of the project described in

Permit Reviewer: Jack Harmon

**DRAFT**

SECTION D.7, permitted in SSM003-34856-00036.

- (d) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligation with regard to the records required by this condition.

**D.4.13 Reporting Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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A quarterly summary of the information to document the compliance status with Condition D.4.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).



Permit Reviewer: Jack Harmon

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## SECTION D.5

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(14)]:

#### Insignificant Activities:

- (a) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (b) One (1) Body Shop - Grinding and Machining, associated with the T1 Full Size Truck Project, approved in 2015 for construction.
- (f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (l) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (u)(3) Grinding Operations (Light Duty Truck Body Shop).
- (u)(21) Mig Welding.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.5.1 Particulate Matter Limitations for Process Operations [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2(e)(2) (Process Operations), the allowable PM emission rate from a manufacturing process shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e), the allowable PM emission rate from a manufacturing process shall not exceed E, the pounds per hour allowable emission rate, when processing a process weight up to sixty thousand (60,000) pounds per hour as determined by the following equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

Permit Reviewer: Jack Harmon

**DRAFT**

## **SECTION D.6**

## **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(14)]:

- (j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), these four (4) generators are considered affected facilities.

Under National Emission Standards for Hazardous Air Pollutants for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ), these four (4) generators are considered affected facilities.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

#### **D.6.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2-3] [326 IAC 8-1-6]**

Pursuant to PSD/Significant Permit Modification No. 003-33317-00038, issued December 6, 2013, and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technology (BACT) for the four (4) landfill gas-fired generators, identified as Gen 1 through Gen 4, shall be as follows:

- (a) The VOC emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.56 g/bhp-hr VOC.
- (b) The NO<sub>x</sub> emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.6 g/bhp-hr NO<sub>x</sub>.
- (c) The CO emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 4.22 g/bhp-hr CO.
- (d) The PM<sub>2.5</sub> emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.13 g/bhp-hr PM<sub>2.5</sub> (0.044 lb/MMBtu).
- (e) The landfill gas-fired generators, Gen 1 through Gen 4, shall each be equipped with lean-burn control technology with air-to-fuel ratio adjustment control and ignition timing to ensure good combustion practices, and shall be maintained in accordance with manufacturer's recommendations.

#### **D.6.2 Opacity Limits [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for generators Gen 1 through Gen 4 shall meet the following:

- (a) When operating alone, the opacity from any one generator shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period. Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9) in a six (6) hour period. The opacity standards apply except during periods of startup, shutdown, or malfunction.

Permit Reviewer: Jack Harmon

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#### D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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A Preventive Maintenance Plan is required for each of the four (4) generators, identified as Gen 1 through Gen 4. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

### **Compliance Determination Requirements [326 IAC 2-7-5(1)]**

#### D.6.4 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-5(1)]

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In order to demonstrate compliance with Condition D.6.1 (PSD BACT), within sixty (60) days of reaching maximum capacity but no later than one hundred eighty (180) days after initial startup, the Permittee shall conduct emissions testing utilizing methods as approved by the commissioner as follows:

- (a) In order to demonstrate compliance with Condition D.6.1(a), the Permittee shall conduct emissions testing of VOC emissions from one of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested.
- (b) In order to demonstrate compliance with Condition D.6.1(b), the Permittee shall conduct emissions testing of NO<sub>x</sub> emissions from one of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested.
- (c) In order to demonstrate compliance with Condition D.6.1(c), the Permittee shall conduct emissions testing of CO emissions from one of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested.
- (d) In order to demonstrate compliance with Condition D.6.1(d), the Permittee shall conduct emissions testing of PM<sub>2.5</sub> emissions from one of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested. PM<sub>2.5</sub> includes filterable and condensable PM.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.6.5 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

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- (a) In order to document the compliance status with Condition D.6.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC BACT, NO<sub>x</sub> BACT, CO BACT, and PM<sub>2.5</sub> BACT, established in Condition D.6.1.

Permit Reviewer: Jack Harmon

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- (1) Records maintained shall include for each generator, Gen 1 through Gen 4, a complete list of maintenance specifications from the manufacturer, including specific parts and functions, maintenance items needed, specific intervals for maintenance of those parts, and the minimum specification required of those parts; and
- (2) Records maintained shall include for each generator, Gen 1 through Gen 4, a complete list of actual maintenance performed, and shall include specific parts and functions, maintenance items performed, date and time of maintenance, and the specification achieved as the result of the maintenance activity.
- (3) Section C - Record Keeping Requirements contains the Permittee's obligation with regard to the record keeping requirements required by this condition.

Permit Reviewer: Jack Harmon

**DRAFT**

**SECTION D.7**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(14)]:**

- (k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:
- (1) One (1) Electrodeposition (ELPO Dipping) System, identified 20, approved in 2015 for construction, using three (3) natural gas-fired regenerative thermal oxidizers (RTOs), each with a maximum heat input capacity of 3.0 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.
  - (2) Miscellaneous Sealers and Adhesives application, identified as 022, approved in 2015 for construction, using no controls, and exhausting to stacks 07 and 08.
  - (3) Miscellaneous natural gas-fired equipment, identified as 021, with no controls.
    - (i) Five (5) ASH Paint Heaters, each with a maximum heat input capacity of 6.0 MMBtu/hr, all venting inside the building.
    - (ii) One (1) ASH Paint Heater with a maximum heat input capacity of 8.0 MMBtu/hr, venting inside the building.
    - (iii) Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr, all venting through stack ID 21a.
    - (iv) One (1) Locker Room Heater, located at the paint area, with a maximum heat input capacity of 0.875 MMBtu/hr, venting inside the building.
    - (v) Four (4) Door Heaters, located at the paint area, each with a maximum heat input capacity of 0.48 MMBtu/hr, all venting inside the building.
    - (vi) Eight (8) Unit Heaters, located at the paint area, each with a maximum heat input capacity of 0.058 MMBtu/hr, all venting inside the building.
    - (vii) Fourteen (14) ELPO Oven Convection Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
    - (viii) Twelve (12) ELPO Oven Radiant Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
    - (ix) One (1) ELPO Oven Radiant Zone 13, with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
    - (x) Fifty-nine (59) Dock Door Heaters, located at the Body Shop and Material Room, each with a maximum heat input capacity of 0.40 MMBtu/hr, all venting inside the building.
    - (xi) Thirty-nine (39) ASH Heaters, located at the Body Shop and Material Room, each with a maximum heat input capacity of 0.972 MMBtu/hr, all venting inside the building.

Permit Reviewer: Jack Harmon

**DRAFT**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

#### **D.7.1 PM2.5 PSD Credit Limitations [326 IAC 2-2]**

The Permittee shall comply with the following limitations:

- (a) The combined natural gas usage at the one hundred fifty (150) combustion units associated with the T1 Full Size Truck Project permitted in SSM 003-34856-00036 shall be limited to 600 million cubic feet (MMCF) per twelve consecutive month period, with compliance determined at the end of each month.
- (b) Boiler, identified as 003, shall be shut down permanently and removed from operation prior to the operation of any of the emission units associated with the T1 Full Size Truck Project permitted in SSM 003-34856-00036.
- (c) PM2.5 emissions from overspray at the Primer Surfacer, identified as 010, shall not exceed 0.07 pound per hour.

Compliance with this condition shall render the requirements of 326 IAC 2-2, PSD, not applicable to this modification for PM2.5.

#### **D.7.2 PSD Minor VOC Limitations [326 IAC 2-2]**

- (a) The VOC input/usage at the Miscellaneous Sealers and Adhesives operation, identified as 022, shall be limited to less than 20 tons per twelve consecutive month period, with compliance determined at the end of each month. Compliance with this condition shall render PSD not applicable to this modification.
- (b) The VOC emissions from the ELPO, identified as 020, controlled by three RTOs, exhausting to Stack 020, shall be limited to 4.07 pounds per hour.

Compliance with this condition shall render the requirements of 326 IAC 2-2, PSD, not applicable to this modification for VOC.

#### **D.7.3 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2]**

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the combined VOC delivered to the applicators from prime application, involving the Electrodeposition (ELPO Dipping) System, identified as 020, in this SECTION D.7 and the Primer Surfacer Coating System, identified as 010, in SECTION D.3, including the flash-off area, and drying oven shall not exceed 0.23 kilogram per liter of coating (1.9 pounds per gallon), excluding water.
- (b) Pursuant to 326 IAC 8-1-2(a), the combined VOC emission limitations under 326 IAC 8-2-2 in Condition D.7.2, for the Electrodeposition (ELPO Dipping) System, identified as 020, and the Primer Surfacer Coating System, identified as 010, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.
- (c) Pursuant to 326 IAC 8-1-2(b), VOC emissions from the Electrodeposition (ELPO Dipping) System, identified as 020, and the Primer Surfacer Coating System, identified as 010, shall be limited to no greater than the equivalent emissions of 2.6 pounds of VOC per

Permit Reviewer: Jack Harmon

**DRAFT**

gallon of coating solids, allowed in paragraph (a) of this condition. This equivalency was determined by the following equation:

$$E = L / [1 - (L / D)]$$

Where:

- L = Applicable emission limit in pounds of VOC per gallon of coating.  
D = Density of VOC in coating in pounds per gallon of VOC.  
E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance of surface coating operations using the compliance methods contained in 326 IAC 8-1-2(a).

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**D.7.4 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicators for the Miscellaneous Sealers and Adhesives, identified as 022.

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**D.7.5 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the three (3) Hot Water Generators, shall each not exceed 0.22 pound/MMBtu.

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**D.7.6 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for the ELPO Dipping System, identified as 20 and its control devices and the Miscellaneous Sealers and Adhesives application, identified as 022 in this Section D.7. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-7-5(1)]**

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**D.7.7 Volatile Organic Compounds (VOC) [326 IAC 2-7-5(1)]**

- (a) Compliance with the VOC content and usage limitations contained in Conditions D.7.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8.
- (b) Pursuant to 326 IAC 8-1-2(a), the combined VOC emission limitations under 326 IAC 8-2-2 in Condition D.7.3, for the Electrodeposition (ELPO Dipping) System, identified as 020, and the Primer Surfacer Coating System, identified as 010, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.

When daily averaging is used to comply with the emission limitations in Condition D.7.3, one of the following equations shall be used to determine the volume weighted average of coatings on a daily basis:

- (1) When a thermal oxidizer is used to demonstrate compliance with an emission

Permit Reviewer: Jack Harmon

**DRAFT**

limitation, the daily volume weighted average shall be determined as follows:

$$A = \frac{\sum_{i=1}^n C_i U_i (1 - (CE \bullet DRE))}{\sum_{i=1}^n U_i (1 - D_i)}$$

Where:

- A = daily volume weighted average, lb VOC/gal, less water
- C = VOC content of coating i, lb VOC/gal, less water
- U = actual coating i usage, gal/day
- D = coating i volume % water
- n = no. of coatings used during the day
- CE = capture efficiency of the emission system vented to the thermal oxidizer
- DRE = destruction/removal efficiency of thermal oxidizer

- (2) When a thermal oxidizer is not used to demonstrate compliance with the emission limitation in Condition D.7.3, the daily volume weighted average shall be determined as follows:

$$A = \frac{\sum_{i=1}^n C_i U_i}{\sum_{i=1}^n U_i}$$

Where:

- A = daily volume weighted average, lb VOC/gal, less water
- C = VOC content of coating i, lb VOC/gal, less water
- U = actual coating i usage, gal/day
- n = no. of coatings used during the day

- (3) Using VOC Control:

The source may comply using VOC control equipment. In this case, the source must comply with the equivalent VOC emission limit expressed in terms of pound of VOC per gallon of coating solids. Equivalent emission limit is calculated using the following equation:

$$E = \frac{L}{(1 - (L/D))}$$

$$= \frac{1.9}{1 - 1.9}$$



Permit Reviewer: Jack Harmon

## DRAFT

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= 2.6 lbs/gallon of coating solids

Where

L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating (1.9 lb/gal);

D= Density of VOC in coating in pounds per gallon of VOC (7.36 lb/gal);

E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit contained in this article.

- (4) To meet the equivalent emission limit in pounds per gallon of applied coating solids (lb/gals) of the pound per gallon less water VOC limit in Condition D.7.3(a), the overall control efficiency shall not be less than the equivalent overall efficiency calculated as follows:

$$O = \frac{(V - E) \times 100}{V}$$

Where:

V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and

O = Equivalent overall efficiency of the capture system and control device as a percentage.

### D.7.8 PM2.5 and VOC Controls [326 IAC 2-7-5(1)]

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- (a) In order to ensure compliance with Condition D.7.1(c), the water wash associated with the Primer Surfacer, identified as 010, in SECTION D.3, shall be in operation at all times the Primer Surfacer, identified as 010, is in operation. The Permittee shall continue monitoring the water wash operation as required in Condition D.3.11.
- (b) In order to ensure compliance with Conditions D.7.2(b) and D.7.3(a), the Permittee shall operate the three (3) RTOs at the same time and at all times the ELPO, identified as 020, is in operation whenever noncompliant coatings are utilized at the ELPO Dipping System, identified as 020.

### D.7.9 Testing Requirements[326 IAC 2-7-5(1)]

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Within sixty (60) days after achieving maximum capacity but no later than one hundred eighty (180) days after initial startup of the ELPO, identified as 020, the Permittee shall conduct initial performance tests to determine the overall control efficiency (capture and destruction) of the three (3) RTOs while all are operating at the same time and shall determine compliance with the VOC limit in Condition D.7.2(b), utilizing methods as approved by the Commissioner. This testing shall

Permit Reviewer: Jack Harmon

**DRAFT**

be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures) for control efficiency testing. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

##### **D.7.10 Thermal Oxidizer Temperature [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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- (a) A continuous monitoring system shall be calibrated and maintained on each thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the VOC limit in Conditions D.7.2(b).
- (c) The Permittee shall operate the all the thermal oxidizers at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps-shall be considered a deviation from this permit.

The instruments used for determining the temperature shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

##### **D.7.11 Parametric Monitoring [326 IAC 2-7-5(3)] [40 CFR 64] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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- (a) The Permittee shall determine the appropriate duct pressure or fan amperage for the three RTOs associated with the ELPO, identified as 020, from the most recent valid stack test that demonstrates compliance with the permit limits on VOC destruction efficiency and control efficiency as approved by IDEM.
- (b) The duct pressure or fan amperage, whichever is monitored by the Permittee under this condition, shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test. If the duct pressure or fan amperage reading is outside the normal range, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A duct pressure or fan amperage reading that is outside the normal range observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **D.7.12 Record Keeping Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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- (a) To document the compliance status with Condition D.7.1(a), the Permittee shall maintain records of the natural gas usage from the one hundred fifty (150) combustion units associated with the T1 Full Size Truck Project , including the RTO controls in this

Permit Reviewer: Jack Harmon

**DRAFT**

SECTION D.7.

- (b) To document the compliance status with Conditions D.7.2(a) and D.7.3(a), the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit in D.7.2(a) and the VOC emission limit in Condition D.7.3(a):
- (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.
  - (4) A log of when the regenerative thermal oxidizers are used to demonstrate compliance with an emission limitation.
  - (5) The monthly cleanup solvent usage.
  - (6) The total VOC usage for each month.
  - (7) During periods when the ELPO regenerative thermal oxidizers (RTOs) are used to demonstrate compliance with an emission limitation:
    - (A) The continuous temperature records (on a 3-hour average basis) for the RTOs and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
    - (B) The Permittee shall maintain records of RTO shutdowns.
    - (C) Records of the dates of any RTO's system alarms and corrective actions taken.
- (c) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligation with regard to the record required by this condition.

**D.7.13 Reporting Requirements[326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

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A quarterly summary of the information to document the compliance status with Condition D.7.1(a) and Condition D.7.2(a) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

Permit Reviewer: Jack Harmon

**DRAFT**

**SECTION D.8**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(14)]:**

- (l) Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.35 MMBtu/hr, and exhausting indoors.
- (m) Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.125 MMBtu/hr, and exhausting indoors.
- (n) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (o) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (p) Forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:
  - (1) Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (2) Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (3) Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (4) Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (5) Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (6) Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (7) Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (8) Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input

Permit Reviewer: Jack Harmon

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capacity of 6.631 MMBtu/hr.

- (9) Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
- (10) Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
- (11) Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.
- (12) Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.
- (13) Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219 MMBtu/hr.
- (14) Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
- (15) Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.
- (16) Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.700 MMBtu/hr.
- (17) Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.
- (18) Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.
- (19) Bodyshop ACU #5, approved in 2016 for construction, with a maximum heat input capacity of 0.228 MMBtu/hr.
- (20) Bodyshop ACU #6, approved in 2016 for construction, with a maximum heat input capacity of 0.258 MMBtu/hr.
- (21) Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (22) Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 2.652 MMBtu/hr.
- (23) Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input

Permit Reviewer: Jack Harmon

**DRAFT**

capacity of 2.652 MMBtu/hr.

- (24) Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (25) Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (26) Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (27) Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (28) Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (29) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (30) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (31) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.394 MMBtu/hr.
- (32) Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.628 MMBtu/hr.
- (33) 216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (34) 216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (35) 216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (36) 216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.

Permit Reviewer: Jack Harmon

**DRAFT**

- (37) 217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.
- (38) 217 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.
- (39) 217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.
- (40) 217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.
- (41) 241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.071 MMBtu/hr.
- (42) 241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.
- (43) 243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.456 MMBtu/hr.
- (44) 243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

#### **D.8.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]**

In order to comply with 326 IAC 2-2 (Prevention of Significant Deterioration), the permittee shall comply with the following:

- (a) The total natural gas fuel usage for the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units shall not exceed seven hundred ninety-five (795) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The NO<sub>x</sub> emissions shall not exceed 100 pounds per million cubic feet of natural gas.

Permit Reviewer: Jack Harmon

**DRAFT**

Compliance with this limit shall limit the NO<sub>x</sub> emissions from the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units to less than forty (40) tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2016 modification.

#### **D.8.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 326 IAC 6-2-4]**

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Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from each of the two (2) boilers, identified as BU-1 and BU-2, shall not exceed 0.20 pounds per MMBtu heat input.

These limitations were based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per MMBtu (lb/MMbtu) heat input.  
Q = Maximum operating capacity rating in MMBtu/hr heat input.

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.8.3 Record Keeping Requirements**

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- (a) To document the compliance status with Condition D.8.1, the Permittee shall maintain records of the natural gas usage to the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units monthly.
- (b) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligations with regard to the records required by this condition.

#### **D.8.4 Reporting Requirements**

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A quarterly report of the information to document the compliance status with Condition D.8.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.



Permit Reviewer: Jack Harmon

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## SECTION E.1

## NSPS

### Facility Description [326 IAC 2-7-5(14)]:

- (a) Facility-wide natural gas usage, including combustion units described as follows:
- (1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
- Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.
- Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.
- (2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
- Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.
- Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

#### E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Db.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units NSPS [40 CFR Part 60, Subpart Db]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Db (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- (A) 40 CFR 60.40b(a),(f),(g),(j);  
(B) 40 CFR 60.41b;  
(C) 40 CFR 60.42b(k)(2);  
(D) 40 CFR 60.44b(a)(1),(h), (i);  
(E) 40 CFR 60.46b(a),(c), (e);

Permit Reviewer: Jack Harmon

**DRAFT**

- (F) 40 CFR 60.48b(b)(1) or (b)(2), (c), (d), (f);
- (G) 40 CFR 60.49b(a),(b), (d), (g), (o), (v), (w).

Permit Reviewer: Jack Harmon

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## SECTION E.2

## NSPS

### Facility Description [326 IAC 2-7-5(14)]:

- (b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (d) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above; and
- (e) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using water wash as PM control, and exhausting to stack 04.
- (k)(2) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, approved in 2015 for construction, using three (3) natural gas-fired regenerative thermal oxidizers (RTOs), each with a maximum heat input capacity of 3.0 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

#### E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart MM.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### E.2.2 Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations [40 CFR Part 60, Subpart MM]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart MM (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

Permit Reviewer: Jack Harmon

**DRAFT**

- (1) 40 CFR 60.390;
- (2) 40 CFR 60.391;
- (3) 40 CFR 60.392(a)(1), (b), (c);
- (4) 40 CFR 60.393;
- (5) 40 CFR 60.394;
- (6) 40 CFR 60.395;
- (7) 40 CFR 60.396;
- (8) 40 CFR 60.397.

Permit Reviewer: Jack Harmon

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**SECTION E.3**

**NESHAP**

**Facility Description [326 IAC 2-7-5(14)]:**

- (b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;
- (d) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;
- (e) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using water wash as PM control, and exhausting to stack 04;
- (f) Miscellaneous solvents, identified as part of 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
- (g) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;
- (h) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10;
- (k)(2) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, approved in 2015 for construction, using three (3) natural gas-fired regenerative thermal oxidizers (RTOs), each with a maximum heat input capacity of 3.0 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr; and

**Insignificant Activities:**

- (b) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements  
[326 IAC 2-7-5(1)]**

**E.3.1 General Provisions Relating to National Emission Standards under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part

Permit Reviewer: Jack Harmon

**DRAFT**

63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart IIII.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**E.3.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]**

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart IIII (included as Attachment C of this permit), for the emission units listed above:

- (1) 40 CFR 63.3080;
- (2) 40 CFR 63.3081;
- (3) 40 CFR 63.3082(a)-(d), (g);
- (4) 40 CFR 63.3083(b), (d);
- (5) 40 CFR 63.3091(a)-(f);
- (6) 40 CFR 63.3092;
- (7) 40 CFR 63.3093;
- (8) 40 CFR 63.3094;
- (9) 40 CFR 63.3100;
- (10) 40 CFR 63.3101;
- (11) 40 CFR 63.3110;
- (12) 40 CFR 63.3120;
- (13) 40 CFR 63.3130;
- (14) 40 CFR 63.3131;
- (15) 40 CFR 63.3150;
- (16) 40 CFR 63.3151;
- (17) 40 CFR 63.3152;
- (18) 40 CFR 63.3160(b), (c);
- (19) 40 CFR 63.3161;
- (20) 40 CFR 63.3163;
- (21) 40 CFR 63.3164;
- (22) 40 CFR 63.3165;
- (23) 40 CFR 63.3166;
- (24) 40 CFR 63.3167(a), (b), (f);
- (25) 40 CFR 63.3168(a), (b), (c), (g);
- (26) 40 CFR 63.3169;
- (27) 40 CFR 63.3170(b);
- (28) 40 CFR 63.3171;
- (29) 40 CFR 63.3173;
- (30) 40 CFR 63.3174;
- (31) 40 CFR 63.3175;
- (32) 40 CFR 63.3176;
- (33) Table 1 to 40 CFR 63, Subpart IIII;
- (34) Table 2 to 40 CFR 63, Subpart IIII;
- (35) Table 3 to 40 CFR 63, Subpart IIII;
- (36) Appendix A to Subpart IIII of Part 63.

Permit Reviewer: Jack Harmon

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E.3.3 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR 63, Subpart Mmmm]

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Pursuant to 40 CFR 63.3881(d), the Permittee which engages in the surface coating of miscellaneous metal parts and products that meets the applicability criteria in 40 CFR 63.3081(b) for the surface coating of automobiles and light-duty trucks, shall comply with the provisions of 40 CFR 63, Subpart Mmmm, in order to demonstrate compliance with 40 CFR 63, Subpart Mmmm.

Permit Reviewer: Jack Harmon

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## SECTION E.4

## NSPS

Facility Description [326 IAC 2-7-5(14)]:

- (j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), these are considered affected facilities.

Under National Emission Standards for Hazardous Air Pollutants for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ), these are considered affected facilities.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

#### E.4.1 General Provisions Relating to New Source Performance Standards [40 CFR 60, Subpart A] [326 IAC 12-1]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart JJJJ.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### E.4.2 New Standards of Performance for Spark Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart JJJJ]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart JJJJ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above

- (1) 40 CFR 60.4230(a)(4)(i), (6)
- (2) 40 CFR 60.4233(e)
- (3) 40 CFR 60.4234
- (4) 40 CFR 60.4243(b)(2)(ii), (g),
- (5) 40 CFR 60.4244
- (6) 40 CFR 60.4245(a), (c), (d)
- (7) 40 CFR 60.4246
- (8) 40 CFR 60.4248
- (9) Tables 1 - 3 (applicable portions)



Permit Reviewer: Jack Harmon

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**SECTION E.5**

**NESHAP**

Facility Description [326 IAC 2-7-5(14)]:

- (j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), these are considered affected facilities.

Under National Emission Standards for Hazardous Air Pollutants for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ), these are considered affected facilities.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements  
[326 IAC 2-7-5(1)]**

- E.5.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, except where otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

- E.5.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR 63, Subpart ZZZZ]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment D to this permit), for the emission unit(s) listed above:

- (1) 63.6580
- (2) 63.6585 (a), (b)
- (3) 63.6590 (a)(2)(i), (b)(2)
- (4) 63.6595 (a)(3)
- (5) 63.6600 (c)
- (6) 63.6605
- (7) 63.6625 (c)
- (8) 63.6640 (e)
- (9) 63.6645 (c)
- (10) 63.6650 (g)
- (11) 63.6655 (c)
- (12) 63.6660
- (13) 63.6665
- (14) 63.6670
- (15) 63.6675
- (16) Table 7 (item 2)
- (17) Table 8

Permit Reviewer: Jack Harmon

**DRAFT**

**SECTION E.6**

**NESHAP**

Facility Description [326 IAC 2-7-5(14)]:

- (a) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;  
  
[Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.]  
  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (b) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;  
  
[Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.]  
  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (k)(4)(iii) Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr.
- (n) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (o) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements  
[326 IAC 2-7-5(1)]**

E.6.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR 63, Subpart A] [326 IAC 20-1]

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart DDDDD
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Permit Reviewer: Jack Harmon

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E.6.2 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers NESHAP [40 CFR 63, Subpart DDDDD] [326 IAC 20-95]

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The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment F to this permit), which are incorporated by reference as 326 IAC 20-95, for the emission units listed above:

- (a) 40 CFR 63.7480;
- (b) 40 CFR 63.7485;
- (c) 40 CFR 63.7490;
- (d) 40 CFR 63.7495;
- (e) 40 CFR 63.7500;
- (f) 40 CFR 63.7505;
- (g) 40 CFR 63.7510;
- (h) 40 CFR 63.7515;
- (i) 40 CFR 63.7520;
- (j) 40 CFR 63.7525;
- (k) 40 CFR 63.7530;
- (l) 40 CFR 63.7535;
- (m) 40 CFR 63.7540;
- (n) 40 CFR 63.7541;
- (o) 40 CFR 63.7545;
- (p) 40 CFR 63.7550;
- (q) 40 CFR 63.7555;
- (r) 40 CFR 63.7560;
- (s) 40 CFR 63.7565;
- (t) 40 CFR 63.7570;
- (u) 40 CFR 63 Table 2 to NESHAP Subpart DDDDD;
- (v) 40 CFR 63 Table 3 to NESHAP Subpart DDDDD;
- (w) 40 CFR 63 Table 4 to NESHAP Subpart DDDDD;
- (x) 40 CFR 63 Table 5 to NESHAP Subpart DDDDD;
- (y) 40 CFR 63 Table 6 to NESHAP Subpart DDDDD;
- (z) 40 CFR 63 Table 8 to NESHAP Subpart DDDDD;
- (aa) 40 CFR 63 Table 9 to NESHAP Subpart DDDDD;
- (bb) 40 CFR 63 Table 10 to NESHAP Subpart DDDDD; and
- (cc) 40 CFR 63 Table 11 to NESHAP Subpart DDDDD.

Permit Reviewer: Jack Harmon

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: General Motors, LLC - Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T003-33417-00036

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

Permit Reviewer: Jack Harmon

**DRAFT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: (317) 233-0178  
Fax: (317) 233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: General Motors, LLC - Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T003-33417-00036

**This form consists of 2 pages**

**Page 1 of 2**

- ☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

|   |
|---|
| Facility/Equipment/Operation:                       |
| Control Equipment:                                  |
| Permit Condition or Operation Limitation in Permit: |
| Description of the Emergency:                       |
| Describe the cause of the Emergency:                |

Permit Reviewer: Jack Harmon

**DRAFT**

If any of the following are not applicable, mark N/A

**Page 2 of 2**

|   |
|---|
| Date/Time Emergency started:  |
| Date/Time Emergency was corrected:  |
| Was the facility being properly operated at the time of the emergency?    Y    N  |
| Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:   |
| Estimated amount of pollutant(s) emitted during emergency:  |
| Describe the steps taken to mitigate the problem:   |
| Describe the corrective actions/response steps taken:   |
| Describe the measures taken to minimize emissions:  |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Permit Reviewer: Jack Harmon

**DRAFT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
Part 70 Quarterly Report**

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-33417-00036  
Facility: Surface Coating and Cleaning Operations, including ELPO Dipping System (006), Primer Surfacers System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013)  
Parameter: VOC emissions  
Limit: Shall not exceed 3,204 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

| Month | VOC Emissions<br>(tons) | VOC Emissions<br>(tons) | VOC Emissions<br>(tons) |
|-------|-------------------------|-------------------------|-------------------------|
|       | This Month              | Previous 11 Months      | 12 Month Total          |
|       |                         |                         |                         |
|       |                         |                         |                         |
|       |                         |                         |                         |

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Permit Reviewer: Jack Harmon

**DRAFT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**Part 70 Quarterly Report**

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-33417-00036  
Facility: Twenty (20) natural gas-fired burners, known as MOD 1 through MOD 10 (each mod contains two burners)  
Parameter: Natural gas usage  
Limit: Shall not exceed six hundred ten (610) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

| Month | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) |
|-------|--------------------------|--------------------------|--------------------------|
|       | This Month               | Previous 11 Months       | 12 Month Total           |
|       |                          |                          |                          |
|       |                          |                          |                          |
|       |                          |                          |                          |

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_



Permit Reviewer: Jack Harmon

**DRAFT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**Part 70 Quarterly Report**

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-33417-00036  
Facility: T1 Full Size Truck Project - Miscellaneous Sealers and Adhesives, ID 022  
Parameter: VOC usage  
Limit: Shall not exceed 20 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

| Month | VOC Usage (tons) | VOC Usage (tons)   | VOC Usage (tons) |
|-------|------------------|--------------------|------------------|
|       | This Month       | Previous 11 Months | 12 Month Total   |
|       |                  |                    |                  |
|       |                  |                    |                  |
|       |                  |                    |                  |

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Permit Reviewer: Jack Harmon

**DRAFT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**Part 70 Quarterly Report**

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-33417-00036  
Facility: T1 Full Size Truck Project - One hundred fifty (150) natural gas-fired heaters, and RTOs  
Parameter: Natural gas usage  
Limit: Shall not exceed six hundred (600) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

| Month | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) |
|-------|--------------------------|--------------------------|--------------------------|
|       | This Month               | Previous 11 Months       | 12 Month Total           |
|       |                          |                          |                          |
|       |                          |                          |                          |
|       |                          |                          |                          |

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Permit Reviewer: Jack Harmon

**DRAFT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**Part 70 Quarterly Report**

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-33417-00036  
Facility: Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units  
Parameter: Natural gas usage  
Limit: Shall not exceed seven hundred ninety-five (795) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

| Month | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) |
|-------|--------------------------|--------------------------|--------------------------|
|       | This Month               | Previous 11 Months       | 12 Month Total           |
|       |                          |                          |                          |
|       |                          |                          |                          |
|       |                          |                          |                          |

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

Permit Reviewer: Jack Harmon

**DRAFT**

**OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: General Motors, LLC - Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T003-33417-00036

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

Permit Reviewer: Jack Harmon

**DRAFT**

Page 2 of 2

|  |                               |
|--|-------------------------------|
| <b>Permit Requirement</b> (specify permit condition #) |                               |
| <b>Date of Deviation:</b>                              | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>                           |                               |
| <b>Probable Cause of Deviation:</b>                    |                               |
| <b>Response Steps Taken:</b>                           |                               |
| <b>Permit Requirement</b> (specify permit condition #) |                               |
| <b>Date of Deviation:</b>                              | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>                           |                               |
| <b>Probable Cause of Deviation:</b>                    |                               |
| <b>Response Steps Taken:</b>                           |                               |
| <b>Permit Requirement</b> (specify permit condition #) |                               |
| <b>Date of Deviation:</b>                              | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>                           |                               |
| <b>Probable Cause of Deviation:</b>                    |                               |
| <b>Response Steps Taken:</b>                           |                               |

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Part 70 Significant Source  
Modification and Significant Permit Modification**

**Source Description and Location**

|   |   |
|---|---|
| <b>Source Name:</b>                         | <b>General Motors LLC Fort Wayne Assembly</b>         |
| <b>Source Location:</b>                     | <b>12200 Lafayette Center Road, Roanoke, IN 46783</b> |
| <b>County:</b>                              | <b>Allen County</b>                                   |
| <b>SIC Code:</b>                            | <b>3711 (Motor Vehicles and Passenger Car Bodies)</b> |
| <b>Operation Permit No.:</b>                | <b>T003-33417-00036</b>                               |
| <b>Operation Permit Issuance Date:</b>      | <b>November 13, 2014</b>                              |
| <b>Significant Source Modification No.:</b> | <b>003-37324-00036</b>                                |
| <b>Significant Permit Modification No.:</b> | <b>003-37339-00036</b>                                |
| <b>Permit Reviewer:</b>                     | <b>Phillip Joseph/Amal Agharkar</b>                   |

**Existing Approvals**

The source was issued Part 70 Operating Permit Renewal No. T003-33417-00036 on November 13, 2014. The source has since received the following approvals:

| Permit Type                     | Permit Number   | Issuance Date      |
|---------------------------------|-----------------|--------------------|
| Significant Source Modification | 003-34856-00036 | February 03, 2015  |
| Significant Permit Modification | 003-34985-00036 | February 23, 2015  |
| Administrative Amendment        | 003-35772-00036 | May 12, 2015       |
| Significant Permit Modification | 003-35825-00036 | September 15, 2015 |

**County Attainment Status**

The source is located in Allen County.

| Pollutant         | Designation  |
|-------------------|--|
| SO <sub>2</sub>   | Better than national standards.  |
| CO                | Unclassifiable or attainment effective November 15, 1990.  |
| O <sub>3</sub>    | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup> |
| PM <sub>2.5</sub> | Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.       |
| PM <sub>2.5</sub> | Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.  |
| PM <sub>10</sub>  | Unclassifiable effective November 15, 1990.  |
| NO <sub>2</sub>   | Cannot be classified or better than national standards.  |
| Pb                | Unclassifiable or attainment effective December 31, 2011.  |

<sup>1</sup>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) **Ozone Standards**

Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM<sub>2.5</sub>**  
 Allen County has been classified as attainment for PM<sub>2.5</sub>. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**  
 Allen County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### Fugitive Emissions

Since this type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

### Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146\\_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

### Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

| Process / Emission Unit             | Source-Wide Emissions Before Modification (ton/year) |                  |                   |                 |                 |       |        |               |                      |
|-------------------------------------|--|------------------|-------------------|-----------------|-----------------|-------|--------|---------------|----------------------|
|                                     | PM   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC   | CO     | Combined HAPs | Single HAP*          |
| Boiler 004 - Worst Case             | 3.79   | 15.18            | 15.18             | 1.20            | 95.11           | 5.23  | 79.89  | 60.90         | 18.76 (Toluene)      |
| Boiler 005 - Worst Case             | 1.81   | 7.23             | 7.23              | 0.57            | 95.11           | 5.23  | 79.89  | 1.79          | 1.71                 |
| Generators Gen1-Gen4                | 11.25  | 11.25            | 11.25             | 21.56           | 51.96           | 48.49 | 365.44 | 36.74         | 36.34 (Formaldehyde) |
| 007 - Heaters                       | 0.40   | 1.60             | 1.60              | 0.13            | 21.11           | 1.16  | 17.73  | 0.40          | 0.38 (Hexane)        |
| MOD 1-10 (air supply house burners) | 2.00   | 7.99             | 7.99              | 0.63            | 105.12          | 5.78  | 88.30  | 1.98          | 1.89 (Hexane)        |
| 006 - Thermal Incineration          | 0.40   | 1.59             | 1.59              | 0.13            | 20.86           | 1.15  | 17.52  | 3.94E-01      | 3.75E-01             |

| Source-Wide Emissions Before Modification (ton/year)                           |       |                  |                   |                 |                 |      |       |               |                   |
|--|-------|------------------|-------------------|-----------------|-----------------|------|-------|---------------|-------------------|
| Process / Emission Unit  | PM    | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC  | CO    | Combined HAPs | Single HAP*       |
| Natural Gas  |       |                  |                   |                 |                 |      |       |               | (Hexane)          |
| 010 - RTO Natural Gas Combustion   | 0.13  | 0.51             | 0.51              | 0.04            | 6.67            | 0.37 | 5.61  | 1.26E-01      | 1.20E-01 (Hexane) |
| 008 - Catalytic Oxidizer Natural Gas Combustion                                | 0.64  | 2.57             | 2.57              | 0.20            | 33.79           | 1.86 | 28.38 | 6.38E-01      | 6.08E-01 (Hexane) |
| 006 - ELPO Dipping System  | -     | -                | -                 | -               | -               | 3204 | -     | -             | -                 |
| 010-Primer Surface System  | 11.21 | 11.21            | 11.21             | -               | -               |      | -     | -             | -                 |
| 008 - Topcoat System   | 59.01 | 59.01            | 59.01             | -               | -               |      | -     | -             | -                 |
| Underbody Robotic Sealer Operation   | -     | -                | -                 | -               | -               |      | -     | -             | -                 |
| 009- Misc. Sealers/Adhesives/Additives   | -     | -                | -                 | -               | -               |      | -     | -             | -                 |
| 009- Misc. Solvents  | -     | -                | -                 | -               | -               |      | -     | -             | -                 |
| 012 - Final Repair Operation   | 0.37  | 0.37             | 0.37              | -               | -               |      | -     | -             | -                 |
| 013 - Maintenance Paint Operation  | 2.82  | 2.82             | 2.82              | -               | -               |      | -     | -             | -                 |
| 014 - Gasoline Fill Operation  | -     | -                | -                 | -               | -               | 9.65 | -     | 7.87E-02      | 7.51E-02          |
| ELPO Oven, RTOs, and other Heaters   | 1.76  | 7.02             | 7.02              | 0.55            | 92.43           | 5.08 | 77.64 | 1.74          | 1.66 (Hexane)     |
| Insignificant Activities   |       |                  |                   |                 |                 |      |       |               |                   |
| Machining and Grinding   | 4.51  | 4.51             | 4.51              | -               | -               | -    | -     | -             | -                 |
| Storage Tanks (1, 2, 7, 8, 12, 13, 14, 15, and two waste purge solvent tanks)  | -     | -                | -                 | -               | -               | 2.11 | -     | -             | -                 |
| Space Heaters, Process Heaters, Boilers with Natural Gas less than 10 MMBtu/hr | 0.08  | 0.32             | 0.32              | 0.03            | 4.17            | 0.23 | 3.50  | 0.08          | 0.08 (Hexane)     |
| Gasoline Fuel Transfer and Dispensing Operation                                | -     | -                | -                 | -               | -               | 4.51 | -     | -             | -                 |



| Process / Emission Unit                                     | Source-Wide Emissions Before Modification (ton/year) |                  |                   |                 |                 |                |               |               |                            |
|---|--|------------------|-------------------|-----------------|-----------------|----------------|---------------|---------------|----------------------------|
|   | PM   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC            | CO            | Combined HAPs | Single HAP*                |
| Emergency Diesel Generator                                  | 0.88   | 0.88             | 0.88              | 0.82            | 12.40           | 1.01           | 2.67          | 3.85E-03      | 1.20E-03                   |
| Emergency Fire Pumps  | 0.44   | 0.44             | 0.44              | 0.41            | 6.20            | 0.50           | 1.34          | 1.93E-03      | 6.00E-04                   |
| Vehicle Fluid Fill Operations                               | -  | -                | -                 | -               | -               | 0.12           | -             | -             | -                          |
| Other Miscellaneous Insignificant Activities                | 1.90   | 1.90             | 1.90              | 0.10            | -               | 3.10           | -             | -             | -                          |
| T1 Full Size Truck Project permitted in SSM 003-34856-00036 |  |                  |                   |                 |                 |                |               |               |                            |
| ELPO, 020   | -  | -                | -                 | -               | -               | 17.82          | -             | -             | -                          |
| Miscellaneous Sealers and Adhesives                         | --   | -                | -                 | -               | --              | 20             | -             | -             | -                          |
| Body Shop - Grinding and Machining Operations               | 4.51   | 4.51             | 4.51              | -               | -               | -              | -             | -             | -                          |
| Natural gas Combustion Units                                | 0.57   | 2.28             | 2.28              | 0.18            | 30.00           | 1.65           | 25.20         | 0.57          | 0.54 (Hexane)              |
| <b>Total for Source</b>                                     | <b>106.71</b>  | <b>136.15</b>    | <b>136.15</b>     | <b>25.99</b>    | <b>482.49</b>   | <b>3333.96</b> | <b>715.47</b> | <b>103.71</b> | <b>36.3 (Formaldehyde)</b> |
| PSD Major Source Thresholds                                 | 250  | 250              | 250               | 250             | 250             | 250            | 250           | --            | --                         |
| *Single highest source-wide HAP.                            |  |                  |                   |                 |                 |                |               |               |                            |

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant, NO<sub>x</sub>, VOC, and CO, is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based on Appendix A of Part 70 Renewal No. T003-33417-00036, issued on November 13, 2014, and Appendix A of Significant Permit Modification No. 003-34985-00036, issued on February 23, 2016

| Description of Proposed Modification |
|--------------------------------------|
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The Office of Air Quality (OAQ) has reviewed an application, submitted by General Motors LLC Fort Wayne Assembly on June 22, 2016, relating to the addition of natural gas combustion units. The following is a list of the proposed emission units:

- (a) Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.35 MMBtu/hr, and exhausting indoors.
- (b) Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.125 MMBtu/hr, and exhausting indoors.
- (c) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (d) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

The following is a list of the modified emission units:

- (e) Forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:
  - (1) Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (2) Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (3) Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (4) Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (5) Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (6) Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (7) Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (8) Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (9) Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

- (10) Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
- (11) Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.
- (12) Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.
- (13) Paint Bld ASH #35, approved in 2016 for construction, with a maximum heat input capacity of 4.219 MMBtu/hr.
- (14) Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
- (15) Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.
- (16) Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.700 MMBtu/hr.
- (17) Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.
- (18) Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.
- (19) Bodyshop ACU #5, approved in 2016 for construction, with a maximum heat input capacity of 0.228 MMBtu/hr.
- (20) Bodyshop ACU #6, approved for construction in 2016, with a maximum heat input capacity of 0.258 MMBtu/hr.
- (21) Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (22) Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 2.652 MMBtu/hr.
- (23) Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (24) Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (25) Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- (26) Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (27) Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (28) Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (29) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (30) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.
- (31) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.394 MMBtu/hr.
- (32) Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.628 MMBtu/hr.
- (33) 216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (34) 216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (35) 216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (36) 216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.
- (37) 217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.
- (38) 217 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.
- (39) 217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.
- (40) 217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.

- (41) 241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.071 MMBtu/hr.
- (42) 241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.
- (43) 243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.456 MMBtu/hr.
- (44) 243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.

#### Enforcement Issues

There are no pending enforcement actions related to this modification.

#### Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

#### Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

| Process / Emission Unit                      | PTE Change of the New/Modified Emission Units (ton/year) |                  |                   |                 |                 |      |       |               |               |
|--|--|------------------|-------------------|-----------------|-----------------|------|-------|---------------|---------------|
|  | PM   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC  | CO    | Combined HAPs | Single HAP    |
| PTE After Modification of Natural Gas Units* | 0.98   | 3.91             | 3.91              | 0.31            | 51.47           | 2.83 | 43.23 | 0.97          | 0.93 (Hexane) |
| PTE Increase from Modification               | 0.98   | 3.91             | 3.91              | 0.31            | 51.46           | 2.83 | 43.22 | 0.97          | 0.93 (Hexane) |

\* Natural Gas Units including the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, the two (2) natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop and Body Shop Building Air Handling Units.

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

(a) Approval to Construct

Pursuant to 326 IAC 2-7-10.5(g)(4), a Significant Source Modification is required because this modification has the potential to emit nitrogen oxides (NO<sub>x</sub>) at greater than or equal to twenty-five (25) tons per year.

(b) Approval to Operate

Pursuant to 326 IAC 2-7-12(d)(1), this change to the permit is being made through a Significant Permit Modification because this modification involved a Title I change, i.e, adding a PSD minor limit, which does not qualify as a Minor Permit Modification or as an Administrative Amendment.

**Permit Level Determination – PSD or Emission Offset**

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of the Part 70 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| Process / Emission Unit                                     | Project Emissions (ton/year) |                  |                     |                 |                 |      | CO    |
|---|------------------------------|------------------|---------------------|-----------------|-----------------|------|-------|
|   | PM                           | PM <sub>10</sub> | PM <sub>2.5</sub> * | SO <sub>2</sub> | NO <sub>x</sub> | VOC  |       |
| 2016 Steam Elimination<br>Natural Gas Combustion<br>Units** | 0.76                         | 3.02             | 3.02                | 0.24            | 39.75           | 2.19 | 33.39 |
| <b>Total for Modification</b>                               | 0.76                         | 3.02             | 3.02                | 0.24            | 39.75           | 2.19 | 33.39 |
| Significant Levels  | 25                           | 15               | 10                  | 40              | 40              | 40   | 100   |

\*PM<sub>2.5</sub> listed is direct PM<sub>2.5</sub>.

\*\* Natural Gas Combustion Units including the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, the two (2) natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop and Body Shop Building Air Handling Units.

- (a) This modification to an existing major PSD stationary source is not major because the emissions increase of each PSD regulated pollutant is less than the PSD significant level. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

**Aggregation Analysis**

**Background**

In November 2013, General Motors (GM) met with IDEM to discuss the Topcoat Robot Replacement project in which GM proposed to replace the 80 Fanuc P155 topcoat robots in the Topcoat MODS with Fanuc P700 robots. This project was developed as part of the annual review of Paint Shop equipment to determine the need for repair and replacement. Timing for start of construction was estimated to be the beginning of 2015, and GM planned to have the application submitted in the spring of 2014.

In May 2014, GM met again with IDEM to discuss the T1 project in which GM proposed to install / replace the required equipment necessary for the next generation full-size truck to be built at the facility. It was agreed that GM would submit a permit application that covered both the Topcoat Robot project and the T1 project. On August 21, 2014, GM submitted the application for the combined project and IDEM issued the permit on February 3, 2015.

On June 1, 2016, GM met with IDEM to discuss a Steam Elimination project that would convert / replace

equipment using steam to direct-fired natural gas in the existing Paint and Body Shops. GM is looking to start of construction sometime in October with the permit application submitted mid-June.

### **Project Timing**

GM began planning for the Topcoat Robot Replacement / T1 project in November of 2013 and construction began in March of 2015. The planning for the Steam Elimination project began in March of 2016 and with construction estimated to begin in October of 2016.

### **Economic / Technical Dependence of Projects**

The Topcoat Robot Replacement project was developed as part of the Paint Shop equipment review that is done annually to determine equipment that needs repair or replacement to allow the plant to continue producing the current product. This project is funded through the Paint Manufacturing Engineering group. The T1 project was developed through the corporate planning group and determines the equipment that will be needed to manufacture a future product and is funded through the new product program.

The Steam Elimination project was developed through the facilities group that focuses on energy conservation and optimization, and is funded through the Global Facilities Energy group. In addition this project is to update facility equipment that is not part of the work required for the next generation full-size truck that will be built at the facility.

### **Relaxing and/or Removing of Permit Conditions**

There will be no permit conditions that will be removed or relaxed from the Topocat Robot Replacement / T1 project with the Steam Elimination project.

### **Summary**

The Steam Elimination project that GM proposes is separate and unrelated to Topcoat Robot Replacement project based on EPA's Aggregation Analysis. As outlined above the Steam Elimination project meets the criteria to be a separate and unrelated project:

- Timing of project is more than two years after the Topcoat Robot Replacement / T1 project.
- The project was planned and will be executed through a completely separate part of the organization, including the engineering, and funding.
- The project is not required for the next-generation full-size truck that will be built at the facility.
- There will be no removal or relaxing of any permit conditions with this product.

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| <b>Federal Rule Applicability Determination</b> |
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Due to the modification at this source, federal rule applicability has been reviewed as follows:

#### **New Source Performance Standards (NSPS):**

- (a) **40 CFR 60, Subpart Db - New Source Performance Standard for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

The requirements of the New Source Performance Standard for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db and 326 IAC 12, are not included in the permit for the two (2) boilers, identified as BU-1 and BU-2, because each boiler does not have a heat input capacity greater than 100 MMBtu/hr.

(b) **40 CFR 60, Subpart Dc - New Source Performance Standard for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

The requirements of the New Source Performance Standard for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc and 326 IAC 12, are not included in the permit for two (2) boilers, identified as BU-1 and BU-2, because each boiler does not have a maximum heat input capacity greater than 10 MMBtu/hr.

- (c) There are no New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included in the permit for this proposed modification .

**National Emission Standards for Hazardous Air Pollutants (NESHAP):**

(d) **40 CFR 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters**

The two (2) boilers, identified as BU-1 and BU-2, are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD and 326 IAC 20-95, because each boiler is considered an industrial boiler located as a major source of HAP.

Pursuant to 40 CFR 63.7575, *industrial boiler* means a boiler used in manufacturing, processing, mining, and refining, or any other industry to provide steam, hot water, and/or electricity.

Pursuant to 40 CFR 63.7575, *Process Heater* means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in §241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition.

The requirements of 40 CFR 63, Subpart DDDDD are not included for the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, twenty (20) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, and twenty-four (24) natural gas-fired Paint Shop Process Air Handling Units because they are used for space heat and are therefore not considered process heaters.

The emission units subject to this rule include the following:

- (a) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (b) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

The two (2) natural gas-fired boilers, identified as BU-1 and BU-2, are subject to the following portions of 40 CFR 63, Subpart DDDDD:

- (1) 40 CFR 63.7480
- (2) 40 CFR 63.7485
- (3) 40 CFR 63.7490
- (4) 40 CFR 63.7495
- (5) 40 CFR 63.7500



- (6) 40 CFR 63.7505
- (7) 40 CFR 63.7510
- (8) 40 CFR 63.7515
- (9) 40 CFR 63.7520
- (10) 40 CFR 63.7525
- (11) 40 CFR 63.7530
- (12) 40 CFR 63.7535
- (13) 40 CFR 63.7540
- (14) 40 CFR 63.7541
- (15) 40 CFR 63.7545
- (16) 40 CFR 63.7550
- (17) 40 CFR 63.7555
- (18) 40 CFR 63.7560
- (19) 40 CFR 63.7565
- (20) 40 CFR 63.7570
- (21) 40 CFR 63, Table 2 to NESHAP Subpart DDDDD
- (22) 40 CFR 63, Table 3 to NESHAP Subpart DDDDD
- (23) 40 CFR 63, Table 4 to NESHAP Subpart DDDDD
- (24) 40 CFR 63, Table 5 to NESHAP Subpart DDDDD
- (25) 40 CFR 63, Table 6 to NESHAP Subpart DDDDD
- (26) 40 CFR 63, Table 8 to NESHAP Subpart DDDDD
- (27) 40 CFR 63, Table 9 to NESHAP Subpart DDDDD
- (28) 40 CFR 63, Table 10 to NESHAP Subpart DDDDD
- (29) 40 CFR 63, Table 11 to NESHAP Subpart DDDDD

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart DDDDD.

- (e) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed modification new source.

**Compliance Assurance Monitoring (CAM):**

- (f) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
  - (2) is subject to an emission limitation or standard for that pollutant; and
  - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

All of the natural gas-fired combustion units being constructed and the steam units being retrofitted for natural gas fuel usage do not use a control device. Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable to any of the new or retrofitted units as part of this modification.

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| <b>State Rule Applicability Determination</b> |
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Due to the modification at this source, state rule applicability has been reviewed as follows:

**326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

This source is not one of the 28 listed source categories and has a potential to emit at least one attainment pollutant greater than 250 tons per year. Therefore, this source is a major source pursuant under 326 IAC 2-2 (PSD).

The uncontrolled potential to emit of this modification is greater than 40 tons per year for NO<sub>x</sub>. In order to make the requirements of 326 IAC 2-2 (PSD) not applicable to the 2016 modification, the Permittee has taken the following limits:

- (a) The total natural gas fuel usage for the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units shall not exceed seven hundred ninety-five (795) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The NO<sub>x</sub> emissions shall not exceed 100 pounds per million cubic feet of natural gas.

Compliance with these limits shall limit the NO<sub>x</sub> emissions from the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units to less than forty (40) tons per year and render the requirements of 326 IAC 2-2 (PSD) not applicable to the 2016 modification.

#### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the natural gas combustion units will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

#### 326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

#### 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The requirements of 326 IAC 6-2-4 are applicable to the two (2) boilers, identified as BU-1 and BU-2, because they are both sources of indirect heating that were constructed after September 21, 1983. The particulate emissions from each of the two (2) boilers, identified as BU-1 and BU-2, shall not exceed Pt (in pounds of PM per MMBtu heat input capacity) as calculated in the following formula

| Year | Unit ID     | Heat Input Capacity (MMBtu/hr) | Q (MMBtu/hr)        | Pt (lb/MMBtu) |
|------|-------------|--------------------------------|---------------------|---------------|
| 1992 | Boiler 004  | 228                            | 240*+228=468        | 0.22          |
| 1993 | Boiler 005  | 228                            | 468+228=696         | 0.20          |
| 2016 | Boiler BU-1 | 0.076                          | 696+0.076=696.076   | 0.20          |
| 2016 | Boiler BU-2 | 0.3                            | 696.076+0.3=696.376 | 0.20          |

\*The 240 MMBtu/hr boiler, identified as 003, was removed in the 2014 Part 70 Renewal. Removal from the source of an indirect heating unit does not decrease Q.

These limitations were based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} = 0.20 \text{ lbs per MMBtu}$$

Where: Pt = pounds of particulate matter emitted per MMBtu (lb/MMbtu) heat input.  
Q = Maximum operating capacity rating in MMBtu/hr heat input.

### 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

Each of the natural gas combustion units have potential VOC emissions of less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to each of these units.

### 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)

The requirements of 326 IAC 10-3 are not applicable to the two (2) boilers, identified as BU-1 and BU-2, because they are not specifically listed and do not have a heat input capacity greater than two hundred fifty (250) MMBtu/hr).

## Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The emission factors used for the calculation of emissions from the combustion of natural gas from the natural gas-fired combustion units being constructed and the steam units being retrofitted for natural gas fuel usage were taken from AP-42. Therefore, the source will not need a testing requirement for these natural gas combustion units.

There are no new or modified compliance requirements included with this modification.

## Proposed Changes

The following changes listed below are due to the proposed modification. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

**Change No. 1:** The new emission units have been added to the permit.

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

\*\*\* This stationary source consists of the following emission units and pollution control devices:

- (l) **Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.35 MMBtu/hr, and exhausting indoors.**
- (m) **Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.125 MMBtu/hr, and exhausting indoors.**
- (n) **One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.**

**[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]**

- (o) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]**
- (p) Forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:**
  - (1) Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
  - (2) Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
  - (3) Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.**
  - (4) Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.**
  - (5) Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.**
  - (6) Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.**
  - (7) Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
  - (8) Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
  - (9) Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
  - (10) Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
  - (11) Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.**
  - (12) Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.**

- (13) **Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219MMBtu/hr.**
- (14) **Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.**
- (15) **Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.**
- (16) **Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.700 MMBtu/hr.**
- (17) **Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.464MMBtu/hr.**
- (18) **Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.**
- (19) **Bodyshop ACU #5, approved in 2016 for construction, with a maximum heat input capacity of 0.228 MMBtu/hr.**
- (20) **Bodyshop ACU #6, approved in 2016 for construction, with a maximum heat input capacity of 0.258 MMBtu/hr.**
- (21) **Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (22) **Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (23) **Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (24) **Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (25) **Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (26) **Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (27) **Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (28) **Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**

- (29) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (30) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (31) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.394 MMBtu/hr.**
- (32) Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.628 MMBtu/hr.**
- (33) 216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (34) 216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (35) 216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (36) 216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (37) 217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.**
- (38) 217 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.**
- (39) 217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.**
- (40) 217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.**
- (41) 241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.071 MMBtu/hr.**
- (42) 241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.**
- (43) 243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.456 MMBtu/hr.**

- (44) 243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.

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## SECTION D.8

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(14)]:

- (l) Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.35 MMBtu/hr, and exhausting indoors.
- (m) Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.125 MMBtu/hr, and exhausting indoors.
- (n) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors. [Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (o) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors. [Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (p) Forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:
  - (1) Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (2) Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
  - (3) Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (4) Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.
  - (5) Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (6) Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
  - (7) Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

- (8) Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
- (9) Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
- (10) Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**
- (11) Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.**
- (12) Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.**
- (13) Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219 MMBtu/hr.**
- (14) Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.**
- (15) Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.**
- (16) Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.700 MMBtu/hr.**
- (17) Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.**
- (18) Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.464 MMBtu/hr.**
- (19) Bodyshop ACU #5, approved in 2016 for construction, with a maximum heat input capacity of 0.228 MMBtu/hr.**
- (20) Bodyshop ACU #6, approved in 2016 for construction, with a maximum heat input capacity of 0.258 MMBtu/hr.**
- (21) Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (22) Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (23) Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**



- (24) Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (25) Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (26) Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (27) Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (28) Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (29) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (30) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.**
- (31) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.394 MMBtu/hr.**
- (32) Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.628 MMBtu/hr.**
- (33) 216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (34) 216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (35) 216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (36) 216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.**
- (37) 217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.**
- (38) 217 ASH #2 (SW), constructed in 1985 as steam units and approved for**

|   |   |
|---|---|
|   | <b>modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.</b>  |
| <b>(39)</b>   | <b>217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.</b> |
| <b>(40)</b>   | <b>217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.</b> |
| <b>(41)</b>   | <b>241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.071 MMBtu/hr.</b> |
| <b>(42)</b>   | <b>241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.</b> |
| <b>(43)</b>   | <b>243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.456 MMBtu/hr.</b> |
| <b>(44)</b>   | <b>243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.</b> |
| <b>(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)</b> |   |

#### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

##### **D.8.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]**

In order to comply with 326 IAC 2-2 (Prevention of Significant Deterioration), the permittee shall comply with the following:

- (a) The total natural gas fuel usage for the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units shall not exceed seven hundred ninety-five (795) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.**
- (b) The NO<sub>x</sub> emissions shall not exceed 100 pounds per million cubic feet of natural gas.**

Compliance with this limit shall limit the NO<sub>x</sub> emissions from the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units to less than forty (40) tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2016 modification.

#### **D.8.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from each of the two (2) boilers, identified as BU-1 and BU-2, shall not exceed 0.199 pounds per MMBtu heat input.

These limitations were based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per MMBtu (lb/MMBtu) heat input.  
Q = Maximum operating capacity rating in MMBtu/hr heat input.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **D.8.3 Record Keeping Requirements**

- (a) To document the compliance status with Condition D.8.1, the Permittee shall maintain records of the natural gas usage to the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units monthly.
- (b) Section C - General Record Keeping Requirements, of this permit, contains the Permittee's obligations with regard to the records required by this condition.

##### **D.8.4 Reporting Requirements**

A quarterly report of the information to document the compliance status with Condition D.8.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

\*\*\*

#### **SECTION E.6 SOURCE OPERATING CONDITIONS– NESHAP, Subpart DDDDD**

##### **Facility Description [326 IAC 2-7-5(14)]:**

- (a) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;  
  
[Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.]  
  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
- (b) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;  
  
[Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.]  
  
[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(k)(4)(iii) Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr.

(n) One (1) natural gas-fired boiler, identified as BU-1, approved in 2016 for construction, with a maximum heat input capacity of 0.076 MMBtu/hr, and exhausting indoors.

[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(o) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.

[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]**

##### **E.6.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 NESHAP DDDDD [326 IAC 20-1] [40 CFR 63, Subpart A]**

~~Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, except where otherwise specified in 40 CFR Part 63, Subpart DDDDD.~~

(a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart DDDDD

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

##### **E.6.2 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers NESHAP [40 CFR 63, Subpart DDDDD] [326 IAC 20-95]**

~~The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment F to this permit), which are incorporated by reference as 326 IAC 20-95, for the emission units listed above: The Permittee which owns and/or operates stationary industrial boilers shall comply with the following provisions of 40 CFR 63, Subpart DDDDD:~~

\*\*\*

### **INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH**

#### **Part 70 Quarterly Report**

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783

**Part 70 Permit No.:** T003-33417-00036  
**Facility:** Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, two natural gas-fired boilers, identified as BU-1 and BU-2, and the forty-four (44) natural gas-fired Paint Shop & Body Shop Building Air Handling Units  
**Parameter:** Natural Gas Usage  
**Limit:** Shall not exceed seven hundred ninety-five (795) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

| Month | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) | Natural Gas Usage (MMCF) |
|-------|--------------------------|--------------------------|--------------------------|
|       | This Month               | Previous 11 Months       | 12 Month Total           |
|       |                          |                          |                          |
|       |                          |                          |                          |
|       |                          |                          |                          |

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

=====

IDEM, OAQ made additional changes to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

**Change No. 1** IDEM revised Sections E.1 to E.5 for clarity.

**SECTION E.1** ~~SOURCE OPERATING CONDITIONS- NSPS, Subpart Db~~

\*\*\*

### **New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

#### **E.1.1 General Provisions Relating to New Source Performance Standards NSPS-D~~b~~ [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

~~The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart D~~b~~.~~

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart D~~b~~.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### **E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units NSPS [40 CFR Part 60, Subpart D~~b~~]**

~~Pursuant to 40 CFR Part 60, Subpart D~~b~~, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart D~~b~~ (included as Attachment A of this permit):~~

**The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart D~~b~~ (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:**

\*\*\*

### **SECTION E.2 SOURCE OPERATING CONDITIONS- NSPS, Subpart M~~M~~**

\*\*\*

### **New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

#### **E.2.1 General Provisions Relating to New Source Performance Standards NSPS-M~~M~~ [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

~~The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart M~~M~~.~~

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart M~~M~~.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### **E.2.2 Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations**

**NSPS [40 CFR Part 60, Subpart MM]**

~~Pursuant to 40 CFR Part 60, Subpart MM, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart MM (included as Attachment B of this permit):~~

**The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart MM (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:**

\*\*\*

**SECTION E.3 ~~SOURCE OPERATING CONDITIONS- NESHAP, Subpart IIII~~**

\*\*\*

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]**

**E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 ~~NESHAP-III~~ [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

~~Pursuant to 40 CFR 63.3101, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 2 of 40 CFR Part 63, Subpart IIII in accordance with schedule in 40 CFR 63 Subpart IIII.~~

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart IIII.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**E.3.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]**

~~The Permittee which engages in surface coating of automobiles and light-duty trucks shall comply with the following provisions of 40 CFR Part 63, Subpart IIII (included as Attachment C of this permit), for the emission units listed above with a compliance date of April 26, 2007:~~

\*\*\*

**SECTION E.4 ~~SOURCE OPERATING CONDITIONS- NSPS, Subpart JJJJ~~**

\*\*\*

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

**E.4.1 General Provisions Relating to New Source Performance Standards NSPS, Subpart JJJJ [40 CFR 60, Subpart A] [326 IAC 12-1]**

~~The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by as 326 IAC 12-1, apply to the facilities described in this section, except where otherwise specified in 40 CFR 60, Subpart JJJJ.~~

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart JJJJJ.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.4.2 New Standards of Performance for Spark Ignition Internal Combustion Engines **NSPS** [40 CFR 60, Subpart JJJJ]

---

~~Pursuant to 40 CFR 60, Subpart JJJJ, the Permittee shall comply with the following provisions of 40 CFR 60, Subpart JJJ (included as Attachment E of this permit):~~

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart JJJJ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

\*\*\*

#### **SECTION E.5 ~~SOURCE OPERATING CONDITIONS-- NESHAP, Subpart ZZZZ~~**

\*\*\*

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]**

E.5.1 General Provisions Relating to **National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 NESHAP ZZZZ** [40 CFR 63, Subpart A] **[326 IAC 20-1]**

---

~~Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A-- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, except where otherwise specified in 40 CFR Part 63, Subpart ZZZZ.~~

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A -- General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.5.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines **NESHAP** [40 CFR 63, Subpart ZZZZ]

---

~~The Permittee which owns and/or operates stationary reciprocating internal combustion engines shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment D of this permit):~~

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment D to this permit), for the emission unit(s) listed above

=====

**Change No. 2:** The Quarterly Report form has been modified to remove the numbered months. The Permittee should state which months are being reported.



| QUARTER : _____    |            | YEAR: _____           |                        |
|--------------------|------------|-----------------------|------------------------|
| Month              | Column 1   | Column 2              | Column 1 +<br>Column 2 |
|                    | This Month | Previous 11<br>Months | 12 Month<br>Total      |
| <del>Month 1</del> |            |                       |                        |
| <del>Month 2</del> |            |                       |                        |
| <del>Month 3</del> |            |                       |                        |

=====

**Change No. 3:** IDEM, OAQ revised the CAM portion of the Section C.15 Response to Excursions or Exceedances to provide clarity.

In paragraph (II)(c), the acronym QIP is being spelled out as Quality Improvement Plan (QIP) because this is the first time it is mentioned in the condition.

In paragraphs (II)(f) and (II)(h)(1), the reference to paragraph (II)(a)(2) is being changed to paragraph (II)(c). Referencing paragraph (II)(a)(2) is correct, however IDEM, OAQ believes that referencing paragraph (II)(c) provides clarity.

C. 15 (II)

- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a **Quality Improvement Plan (QIP)** ~~QIP~~. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(~~c~~)(~~a~~)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
- (h) *CAM recordkeeping requirements.*
- (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(~~c~~)(~~a~~)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

=====

**Change No. 3** IDEM added the rule citation 326 IAC 2-7-5(1) to the Compliance Determination Requirements subsection title in Sections D. 1 to D.7 to clarify the authority of these conditions.

**SECTION D.X**

**Compliance Determination Requirements [326 IAC 2-7-5(1)]**

=====

**Change No. 4** 326 IAC 2-7-16 states that the Permittee must notify IDEM within "four (4) daytime business hours" for emergencies. The Emergency Occurrence Report Form lacked the word 'daytime'. 'Daytime' is being added to be consistent with the rule.

- The Permittee must notify the Office of Air Quality (OAQ), within four (4) **daytime** business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- =====

### Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 22, 2016.

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 003-37324-00036. The operation of this proposed modification shall be subject to the conditions of the attached Significant Permit Modification.

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Amal Agharkar at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8422 or toll free at 1-800-451-6027, extension 2-8422.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emission Calculations**  
**Summary Uncontrolled Potential to Emit of Criteria Pollutants**

Page 1 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar  
**Date** July 1, 2016

|  | Uncontrolled PTE (ton/yr) |        |        |                 |                 |        |        |            |           |              |
|--|---------------------------|--------|--------|-----------------|-----------------|--------|--------|------------|-----------|--------------|
| Unit   | PM                        | PM10   | PM2.5  | SO <sub>2</sub> | NO <sub>x</sub> | VOC    | CO     | Total HAPs | Worst HAP |              |
| Emission Units   |                           |        |        |                 |                 |        |        |            |           |              |
| Boiler 004 - Natural Gas Alternative   | 1.81                      | 7.23   | 7.23   | 0.57            | 95.11           | 5.23   | 79.89  | 1.79E+00   | 1.71E+00  | Hexane       |
| Boiler 004 - Landfill Gas Alternative  | 3.79                      | 15.18  | 15.18  | 1.20            | 65.91           | 4.99   | 79.89  | 6.09E+01   | 1.88E+01  | Toluene      |
| Boiler 004 - Worst Case  | 3.79                      | 15.18  | 15.18  | 1.20            | 95.11           | 5.23   | 79.89  | 6.09E+01   | 1.88E+01  | Toluene      |
| Boiler 005 - Natural Gas Alternative   | 1.81                      | 7.23   | 7.23   | 0.57            | 95.11           | 5.23   | 79.89  | 1.79E+00   | 1.71E+00  | Hexane       |
| Boiler 005 - Worst Case  | 1.81                      | 7.23   | 7.23   | 0.57            | 95.11           | 5.23   | 79.89  | 1.79E+00   | 1.71E+00  | Hexane       |
| Generators Gen1 - Gen4   | 11.25                     | 11.25  | 11.25  | 21.56           | 51.96           | 48.49  | 365.44 | 3.67E+01   | 3.63E+01  | Formaldehyde |
| 007 - Space heaters and process heaters  | 0.40                      | 1.60   | 1.60   | 0.13            | 21.11           | 1.16   | 17.73  | 3.98E-01   | 3.80E-01  | Hexane       |
| MOD 1-10 - 20 air supply house burners   | 2.00                      | 7.99   | 7.99   | 0.63            | 105.12          | 5.78   | 88.30  | 1.98E+00   | 1.89E+00  | Hexane       |
| 006 - ELPO Dipping System  | --                        | --     | --     | --              | --              | 356.4  | --     | --         | --        |              |
| 006 - Thermal Incineration Natural Gas Combustion                              | 0.40                      | 1.59   | 1.59   | 0.13            | 20.86           | 1.15   | 17.52  | 3.94E-01   | 3.75E-01  | Hexane       |
| 010 - Primer Surfacer System   | 224.1                     | 224.1  | 224.1  | --              | --              | 713.1  | --     | --         | --        |              |
| 010 - RTO Natural Gas Combustion   | 0.13                      | 0.51   | 0.51   | 0.04            | 6.67            | 0.37   | 5.61   | 1.26E-01   | 1.20E-01  | Hexane       |
| 008 - Topcoat System   | 1180.3                    | 1180.3 | 1180.3 | --              | --              | 4197.9 | --     | --         | --        |              |
| 008 - Catalytic Oxidizer Natural Gas Combustion                                | 0.64                      | 2.57   | 2.57   | 0.20            | 33.79           | 1.86   | 28.38  | 6.38E-01   | 6.08E-01  | Hexane       |
| Underbody Robotic Sealer Operation   | 0.00                      | 0.00   | 0.00   | 0.00            | 0.00            | 6.15   | 0.00   | --         | --        |              |
| 009 - Misc. Sealers/Adhesives/Additives  | --                        | --     | --     | --              | --              | 454    | --     | --         | --        |              |
| 009 - Misc. Solvents   | --                        | --     | --     | --              | --              | 431    | --     | --         | --        |              |
| 012 - Final Repair Operation   | 7                         | 7      | 7      | --              | --              | 17     | --     | --         | --        |              |
| 013 - Maintenance Paint Operation  | 3                         | 3      | 3      | --              | --              | 11     | --     | --         | --        |              |
| 014 - Gasoline Fill Operation  | --                        | --     | --     | --              | --              | 9.65   | --     | 7.87E-02   | 7.51E-02  | Hexane       |
| ELPO Dipping System  | -                         | -      | -      | -               | -               | 356.44 | -      | -          | -         |              |
| Miscellaneous Sealers and Adhesives  | -                         | -      | -      | -               | -               | 155.58 | -      | -          | -         |              |
| ELPO Oven, RTOs, and other Heaters   | 1.76                      | 7.02   | 7.02   | 0.55            | 92.43           | 5.08   | 77.64  | 1.74       | 1.66      | Hexane       |
| 2016 Steam Elimination Natural Gas Combustion                                  | 0.98                      | 3.91   | 3.91   | 0.31            | 51.46           | 2.83   | 43.22  | 0.97       | 0.93      | Hexane       |
| Insignificant Activities   |                           |        |        |                 |                 |        |        |            |           |              |
| Body Shop - Grinding and Machining Operations                                  | 4.51                      | 4.51   | 4.51   | -               | -               | -      | -      | -          | -         |              |
| Machining and Grinding   | 4.51                      | 4.51   | 4.51   | --              | --              | --     | --     | --         | --        |              |
| Storage Tanks (1, 2, 7, 8, 12, 13, 14, 15, and two waste purge solvent tanks)  | --                        | --     | --     | --              | --              | 2.11   | --     | --         | --        |              |
| Space Heaters, Process Heaters, Boilers with Natural Gas less than 10 MMBtu/hr | 0.08                      | 0.32   | 0.32   | 0.03            | 4.17            | 0.23   | 3.50   | 7.87E-02   | 7.51E-02  | Hexane       |
| Gasoline Fuel Transfer and Dispensing Operation                                | --                        | --     | --     | --              | --              | 4.51   | --     | --         | --        |              |
| Emergency Diesel Generator   | 0.88                      | 0.88   | 0.88   | 0.82            | 12.40           | 1.01   | 2.67   | 3.85E-03   | 1.20E-03  | Formaldehyde |
| Emergency Fire Pumps   | 0.44                      | 0.44   | 0.44   | 0.41            | 6.20            | 0.50   | 1.34   | 1.93E-03   | 6.00E-04  | Formaldehyde |
| Vehicle Fluid Fill Operations  | --                        | --     | -      | --              | --              | 0.12   | --     | --         | --        |              |
| Other Miscellaneous Insignificant Activities                                   | 1.9                       | 1.9    | 1.9    | 0.1             | --              | 3.1    | --     | --         | --        |              |
| Source Total Uncontrolled PTE (ton/yr):  | 1450                      | 1486   | 1486   | 27              | 596             | 6796   | 811    | 106        | 36.34     | Formaldehyde |

**Appendix A: Emission Calculations**  
**Summary Limited Potential to Emit of Criteria Pollutants**

Page 2 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly

**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783

**Part 70 Operating Permit Renewal No.:** 003-33417-00036

**Significant Source Modification Number:** 003-37324-00036

**Significant Permit Modification Number:** 003-37339-00036

**Reviewer:** Phillip Joseph/Amal Agharkar

**Date:** July 1, 2016

|  | Limited PTE (ton/yr) |       |       |                 |                 |        |        |            |           |              |
|--|----------------------|-------|-------|-----------------|-----------------|--------|--------|------------|-----------|--------------|
| Unit   | PM                   | PM10  | PM2.5 | SO <sub>2</sub> | NO <sub>x</sub> | VOC    | CO     | Total HAPs | Worst HAP |              |
| Emission Units   |                      |       |       |                 |                 |        |        |            |           |              |
| Boiler 004 - Only Natural Gas Scenario   | 1.81                 | 7.23  | 7.23  | 0.57            | 95.11           | 5.23   | 79.89  | 1.79E+00   | 1.71E+00  | Hexane       |
| Boiler 004 - Landfill Gas Alternative  | 3.79                 | 15.18 | 15.18 | 1.20            | 65.91           | 4.99   | 79.89  | 60.90      | 18.76     | Toluene      |
| Boiler 004 - Worst Case  | 3.79                 | 15.18 | 15.18 | 1.20            | 95.11           | 5.23   | 79.89  | 6.09E+01   | 1.88E+01  | Toluene      |
| Boiler 005 - Only Natural Gas Scenario   | 1.81                 | 7.23  | 7.23  | 0.57            | 95.11           | 5.23   | 79.89  | 1.79       | 1.71      | Hexane       |
| Boiler 005 - Worst Case  | 1.81                 | 7.23  | 7.23  | 0.57            | 95.11           | 5.23   | 79.89  | 1.79       | 1.71      | Hexane       |
| Generators Gen1 - Gen4   | 11.25                | 11.25 | 11.25 | 21.56           | 51.96           | 48.49  | 365.44 | 36.74      | 36.34     | Formaldehyde |
| 007 - Space heaters and process heaters  | 0.40                 | 1.60  | 1.60  | 0.13            | 21.11           | 1.16   | 17.73  | 0.40       | 0.38      | Hexane       |
| MOD 1-10 - 20 air supply house burners   | 2.00                 | 7.99  | 7.99  | 0.63            | 105.12          | 5.78   | 88.30  | 1.98       | 1.89      | Hexane       |
| 006 - Thermal Incineration Natural Gas Combustion                              | 0.40                 | 1.59  | 1.59  | 0.13            | 20.86           | 1.15   | 17.52  | 3.94E-01   | 3.75E-01  | Hexane       |
| 010 - RTO Natural Gas Combustion   | 0.13                 | 0.51  | 0.51  | 0.04            | 6.67            | 0.37   | 5.61   | 1.26E-01   | 1.20E-01  | Hexane       |
| 008 - Catalytic Oxidizer Natural Gas Combustion                                | 0.64                 | 2.57  | 2.57  | 0.20            | 33.79           | 1.86   | 28.38  | 6.38E-01   | 6.08E-01  | Hexane       |
| 006 - ELPO Dipping System  | --                   | --    | --    | --              | --              | 3204   | --     | --         | --        |              |
| 010 - Primer Surfacer System   | 11.21                | 11.21 | 11.21 | --              | --              |        | --     | --         |           |              |
| 008 - Topcoat System   | 59.01                | 59.01 | 59.01 | --              | --              |        | --     | --         |           |              |
| Underbody Robotic Sealer Operation   | -                    | -     | -     | -               | -               |        | --     | --         |           |              |
| 009 - Misc. Sealers/Adhesives/Additives  | --                   | --    | -     | --              | --              |        | --     | --         |           |              |
| 009 - Misc. Solvents   | --                   | --    | -     | --              | --              |        | --     | --         |           |              |
| 012 - Final Repair Operation   | 0.37                 | 0.37  | 0.37  | --              | --              |        | --     | --         |           |              |
| 013 - Maintenance Paint Operation  | 2.82                 | 2.82  | 2.82  | --              | --              |        | --     | --         |           |              |
| 014 - Gasoline Fill Operation  | --                   | --    | --    | --              | --              | 9.65   | --     | 7.87E-02   | 7.51E-02  | Hexane       |
| ELPO Dipping System  | -                    | -     | -     | -               | -               | 17.82  | -      | -          | -         |              |
| Miscellaneous Sealers and Adhesives  | -                    | -     | -     | -               | -               | 20.00  | -      | -          | -         |              |
| Natural Gas Combustion   | 0.57                 | 2.28  | 2.28  | 0.18            | 30.00           | 1.65   | 25.20  | 0.57       | 0.54      | Hexane       |
| 2016 Steam Elimination Natural Gas Combustion                                  | 0.76                 | 3.02  | 3.02  | 0.24            | 39.75           | 2.19   | 33.39  | 0.75       | 0.72      | Hexane       |
| Insignificant Activities   |                      |       |       |                 |                 |        |        |            |           |              |
| Body Shop - Grinding and Machining Operations                                  | 4.51                 | 4.51  | 4.51  | -               | -               | -      | -      | -          | -         |              |
| Machining and Grinding   | 4.51                 | 4.51  | 4.51  | --              | --              | --     | --     | --         | --        |              |
| Storage Tanks (1, 2, 7, 8, 12, 13, 14, 15, and two waste purge solvent tanks)  | --                   | --    | --    | --              | --              | 2.11   | --     | --         | --        |              |
| Space Heaters, Process Heaters, Boilers with Natural Gas less than 10 MMBtu/hr | 0.08                 | 0.32  | 0.32  | 0.03            | 4.17            | 0.23   | 3.50   | 0.08       | 0.08      |              |
| Gasoline Fuel Transfer and Dispensing Operation                                | --                   | --    | --    | --              | --              | 4.51   | --     | --         | --        |              |
| Emergency Diesel Generator   | 0.88                 | 0.88  | 0.88  | 0.82            | 12.40           | 1.01   | 2.67   | 3.85E-03   | 1.20E-03  |              |
| Emergency Fire Pumps   | 0.44                 | 0.44  | 0.44  | 0.41            | 6.20            | 0.50   | 1.34   | 1.93E-03   | 6.00E-04  | Formaldehyde |
| Vehicle Fluid Fill Operations  | --                   | --    | -     | --              | --              | 0.12   | --     | --         | --        |              |
| Other Miscellaneous Insignificant Activities                                   | 1.90                 | 1.90  | 1.90  | 0.10            | --              | 3.10   | --     | --         | --        |              |
| Source Total Limited PTE (ton/yr):   | 107.5                | 139.2 | 139.2 | 26.2            | 522.2           | 3336.1 | 748.9  | 104.5      | 36.3      | Formaldehyde |

## Appendix A: Summary of Modification

Page 3 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

| Limited PTE (ton/yr)                          |              |              |              |                 |                 |               |              |              |             |
|---|--------------|--------------|--------------|-----------------|-----------------|---------------|--------------|--------------|-------------|
|   | PM           | PM10         | PM2.5        | SO <sub>2</sub> | NO <sub>x</sub> | VOC           | CO           | Total HAPs   | Worst HAP   |
| Previous PTE                                  | 106.71       | 136.15       | 136.15       | 25.99           | 482.49          | 3333.96       | 715.47       | 103.71       | 36.3        |
| 2016 Steam Elimination Natural Gas Combustion | 0.76         | 3.02         | 3.02         | 0.24            | 39.75           | 2.19          | 33.39        | 0.75         | 0.72        |
| <b>New PTE</b>                                | <b>107.5</b> | <b>139.2</b> | <b>139.2</b> | <b>26.2</b>     | <b>522.2</b>    | <b>3336.1</b> | <b>748.9</b> | <b>104.5</b> | <b>36.3</b> |

Formaldehyde

Hexane

Formaldehyde

| Unlimited PTE (ton/yr)                        |      |      |       |                 |                 |      |       |            |           |
|---|------|------|-------|-----------------|-----------------|------|-------|------------|-----------|
|   | PM   | PM10 | PM2.5 | SO <sub>2</sub> | NO <sub>x</sub> | VOC  | CO    | Total HAPs | Worst HAP |
| 2016 Steam Elimination Natural Gas Combustion | 0.98 | 3.91 | 3.91  | 0.31            | 51.46           | 2.83 | 43.22 | 0.97       | 0.93      |

Hexane

**Dock Door Heaters**

| Unit         | MMBtu/Hr   |
|--------------|------------|
| DUH-56       | 0.35       |
| DUH-88       | 0.35       |
| DUH-40       | 0.35       |
| DUH-57       | 0.35       |
| <b>Total</b> | <b>1.4</b> |

**Boiler Units**

| Unit         | MMBtu/Hr     |
|--------------|--------------|
| BU-1         | 0.076        |
| BU-2         | 0.3          |
| <b>Total</b> | <b>0.376</b> |

**Grand Total 119.832 MMBtu/hr**

**Gas Fired Space Heaters**

| Unit         | MMBtu/Hr    |
|--------------|-------------|
| UH-1         | 0.125       |
| UH-2         | 0.125       |
| UH-3         | 0.125       |
| UH-4         | 0.125       |
| UH-5         | 0.125       |
| UH-6         | 0.125       |
| UH-7         | 0.125       |
| UH-8         | 0.125       |
| UH-9         | 0.125       |
| UH-10        | 0.125       |
| UH-11        | 0.125       |
| UH-12        | 0.125       |
| UH-13        | 0.125       |
| UH-14        | 0.125       |
| <b>Total</b> | <b>1.75</b> |

**Paint Shop & Body Shop Building Air Handling Units**

| Unit              | MMBtu/Hr      |
|-------------------|---------------|
| Paint Bld ASH #3  | 6.631         |
| Paint Bld ASH #4  | 6.631         |
| Paint Bld ASH #5  | 1.266         |
| Paint Bld ASH #6  | 1.266         |
| Paint Bld ASH #16 | 1.989         |
| Paint Bld ASH #17 | 1.989         |
| Paint Bld ASH #18 | 6.631         |
| Paint Bld ASH #19 | 6.631         |
| Paint Bld ASH #20 | 6.631         |
| Paint Bld ASH #21 | 6.631         |
| Paint Bld ASH #33 | 3.617         |
| Paint Bld ASH #34 | 3.617         |
| Paint Bld ASH #35 | 4.219         |
| Paint Bld ASH #36 | 1.989         |
| Paint Bld ASH #37 | 1.447         |
| Bodyshop ACU #1   | 0.700         |
| Bodyshop ACU #2   | 0.464         |
| Bodyshop ACU #3   | 0.464         |
| Bodyshop ACU #5   | 0.228         |
| Bodyshop ACU #6   | 0.258         |
| <b>Total</b>      | <b>63.299</b> |

**Paint Shop Process Air Handling Units**

| Unit                | MMBtu/Hr      |
|---------------------|---------------|
| Mod Obs ASH #1      | 2.652         |
| Mod Obs ASH #2      | 2.652         |
| Mod Obs ASH #3      | 2.652         |
| Mod Obs ASH #4      | 2.652         |
| Mod Obs ASH #5      | 2.652         |
| Mod Obs ASH #6      | 2.652         |
| Mod Obs ASH #7      | 2.652         |
| Mod Obs ASH #8      | 2.652         |
| Mod Obs ASH #9      | 2.652         |
| Mod Obs ASH #10     | 2.652         |
| 206 ASH             | 4.394         |
| Prime Cleanroom ASH | 1.628         |
| 216 ASH #1 (SE)     | 0.939         |
| 216 ASH #2 (SW)     | 0.939         |
| 216 ASH #3 (NE)     | 0.939         |
| 216 ASH #4 (NW)     | 0.939         |
| 217 ASH #1 (SE)     | 1.215         |
| 217 ASH #2 (SW)     | 1.215         |
| 217 ASH #3 (NW)     | 0.723         |
| 217 ASH #4 (NE)     | 0.723         |
| 241 ASH #1 (SE)     | 2.071         |
| 241 ASH #2 (SW)     | 4.653         |
| 243 ASH #1 (NE)     | 1.456         |
| 243 ASH #2 (NW)     | 4.653         |
| <b>Total</b>        | <b>53.007</b> |

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**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar  
**Date** July 1, 2016

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
MMBTU/HR >100**

Page 5 of 22 TSD App A

**Steam Elimination Project - Unlimited PTE**

**Company Name:** General Motors LLC Fort Wayne Assembly

**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783

**Part 70 Operating Permit Renewal No.:** 003-33417-00036

**Significant Source Modification Number:** 003-37324-00036

**Significant Permit Modification Number:** 003-37339-00036

**Reviewer:** Phillip Joseph/Amal Agharkar

|                                 |                       |                                 |
|---------------------------------|-----------------------|---------------------------------|
| Heat Input Capacity<br>MMBtu/hr | HHV<br>mmBtu<br>mmscf | Potential Throughput<br>MMCF/yr |
| 119.8                           | 1020                  | 1029.1                          |

|                               | Pollutant |       |               |      |             |      |       |
|-------------------------------|-----------|-------|---------------|------|-------------|------|-------|
|                               | PM*       | PM10* | direct PM2.5* | SO2  | NOx         | VOC  | CO    |
| Emission Factor in lb/MMCF    | 1.9       | 7.6   | 7.6           | 0.6  | 100.0       | 5.5  | 84.0  |
|                               |           |       |               |      | **see below |      |       |
| Potential Emission in tons/yr | 0.98      | 3.91  | 3.91          | 0.31 | 51.46       | 2.83 | 43.22 |

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Hazardous Air Pollutants (HAPs)**

|                               | HAPs - Organics |                 |              |          |          |
|-------------------------------|-----------------|-----------------|--------------|----------|----------|
|                               | Benzene         | Dichlorobenzene | Formaldehyde | Hexane   | Toluene  |
| Emission Factor in lb/MMcf    | 2.1E-03         | 1.2E-03         | 7.5E-02      | 1.8E+00  | 3.4E-03  |
| Potential Emission in tons/yr | 1.08E-03        | 6.17E-04        | 3.86E-02     | 9.26E-01 | 1.75E-03 |

|                               | HAPs - Metals |          |          |           |          |
|-------------------------------|---------------|----------|----------|-----------|----------|
|                               | Lead          | Cadmium  | Chromium | Manganese | Nickel   |
| Emission Factor in lb/MMcf    | 5.0E-04       | 1.1E-03  | 1.4E-03  | 3.8E-04   | 2.1E-03  |
| Potential Emission in tons/yr | 2.57E-04      | 5.66E-04 | 7.20E-04 | 1.96E-04  | 1.08E-03 |

Methodology is the same above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**Natural Gas Combustion Only**  
**MMBTU/HR >100**  
**Steam Elimination Project - Limited PTE**

Page 6 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar  
 Limited Throughput  
 MMBTU/yr  
 795.0

|                               | Pollutant |       |               |      |             |      |       |
|-------------------------------|-----------|-------|---------------|------|-------------|------|-------|
|                               | PM*       | PM10* | direct PM2.5* | SO2  | NOx         | VOC  | CO    |
| Emission Factor in lb/MMCF    | 1.9       | 7.6   | 7.6           | 0.6  | 100.0       | 5.5  | 84.0  |
| Potential Emission in tons/yr | 0.76      | 3.02  | 3.02          | 0.24 | **see below | 2.19 | 33.39 |
|                               |           |       |               |      | 39.75       |      |       |

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Hazardous Air Pollutants (HAPs)**

|                               | HAPs - Organics |                 |              |          |          |
|-------------------------------|-----------------|-----------------|--------------|----------|----------|
|                               | Benzene         | Dichlorobenzene | Formaldehyde | Hexane   | Toluene  |
| Emission Factor in lb/MMcf    | 2.1E-03         | 1.2E-03         | 7.5E-02      | 1.8E+00  | 3.4E-03  |
| Potential Emission in tons/yr | 8.35E-04        | 4.77E-04        | 2.98E-02     | 7.16E-01 | 1.35E-03 |

|                               | HAPs - Metals |          |          |           |          |
|-------------------------------|---------------|----------|----------|-----------|----------|
|                               | Lead          | Cadmium  | Chromium | Manganese | Nickel   |
| Emission Factor in lb/MMcf    | 5.0E-04       | 1.1E-03  | 1.4E-03  | 3.8E-04   | 2.1E-03  |
| Potential Emission in tons/yr | 1.99E-04      | 4.37E-04 | 5.57E-04 | 1.51E-04  | 8.35E-04 |

Methodology is the same above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emissions Calculations**  
**VOC and Particulate**  
**From Surface Coating Operations**

Page 7 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar  
**Date** July 1, 2016

| NEW EMISSION UNIT  |   |   |   |                      |   |                                 |                                       |                 |                  |  |                             |
|--|---|---|---|----------------------|---|---------------------------------|---------------------------------------|-----------------|------------------|--|-----------------------------|
| Process/Material   | V <sub>C</sub> (lb VOC/gal coating, less water) | S <sub>C</sub> (gal solids/gal coating) | A <sub>V</sub> (ft <sup>2</sup> /vehicle) | T <sub>I</sub> (mil) | e <sub>T</sub> (fraction of total coating solids used that remains on coated parts) | E <sub>V</sub> (lb VOC/vehicle) | Maximum Production Rate (vehicles/hr) | PTE VOC (lb/hr) | PTE VOC (ton/yr) | Thermal Incinerator Overall Control Efficiency | Controlled PTE VOC (ton/yr) |
| $E_V = \frac{A_V \cdot T_I \cdot (1 \text{ ft} / 12,000 \text{ mil}) \cdot (7.48 \text{ gal} / \text{ft}^3) \cdot V_C}{S_C \cdot e_T}$ |   |   |   |                      |   |                                 |                                       |                 |                  |  |                             |
| ELPO   | 0.741   | 0.9068                                  | 1270                                      | 1.70                 | 1.0   | 1.10                            | 74                                    | 81.38           | 356.4            | 95.00%   | 17.82                       |

Note: All three (3) RTOs are operating when ELPO, ID020 is operating.

**Methodology**

V<sub>C</sub> = VOC content of coating as applied, less water (lb VOC/gal coating, less water) - value provided by Permittee

S<sub>C</sub> = Solids in coating as applied (gal solids/gal coating) - value provided by Permittee

A<sub>V</sub> = Area coated per vehicle (ft<sup>2</sup>/vehicle) - value provided by Permittee

T<sub>I</sub> = Thickness of the dry coating film (mil) - value provided by Permittee

e<sub>T</sub> = Transfer efficiency fraction (fraction of total coating solids used that remains on coated parts) - value provided by Permittee

E<sub>V</sub> = Emission Factor for VOC (lb VOC/vehicle)

Per AP-42, Chapter 4, Section 4.2.2.8, Automobile and Light Duty Truck Surface Coating Operations (8/82), the VOC emission factor may be determined by the equation below:

Potential VOC (lb/hr) = E<sub>V</sub> (lb VOC/vehicle) \* Production Rate (vehicles/hr)

Potential VOC (ton/yr) = Potential VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

RTO Overall Control Efficiency = Capture Efficiency (100%) \* Destruction Efficiency (95%) - values submitted by Permittee

Controlled PTE VOC (ton/yr) = PTE VOC (ton/yr) \* (1 - Capture and Destruction Efficiency)

| NEW EMISSION UNIT   |                              |
|---|------------------------------|
| Miscellaneous Sealers and Adhesives   |                              |
| Material usage per job  | 1.20 gal                     |
| Material VOC content  | 0.4 #VOC/gal                 |
| Maximum Production Rate   | 74 Jobs per hour             |
| Tons VOC/yr = $\frac{(\text{Avg. Usage} \cdot \text{Avg. VOC content} \cdot \text{Annual Volume})}{2000 \text{ lbs/ton}}$ |                              |
| <b>Tons Produced VOC/yr</b>   |                              |
| = <b>155.58</b>   | The operation has no control |
| <b>lbs VOC/vehicle=</b> <b>0.48</b>   | <b>20 tons/yr limit</b>      |

| MODIFIED EMISSION UNIT (Topcoat) |                  |   |                        |                                     |                                  |                 |                  |                                  |                     |                              |                                |                             |                       |                           |
|----------------------------------|------------------|---|------------------------|-------------------------------------|----------------------------------|-----------------|------------------|----------------------------------|---------------------|------------------------------|--------------------------------|-----------------------------|-----------------------|---------------------------|
|                                  | Density (lb/gal) | Weight % Volatile (H <sub>2</sub> O & Organics) | Gal of Mat. (gal/unit) | Maximum Production Rate (unit/hour) | Pounds VOC per gallon of coating | PTE VOC (lb/hr) | PTE VOC (ton/yr) | PTE PM/PM <sub>10</sub> (ton/yr) | Transfer Efficiency | VOC/PM Control               | Overall VOC Control Efficiency | Controlled PTE VOC (ton/yr) | PM Control Efficiency | Controlled PTE P (ton/yr) |
|                                  |                  |   |                        |                                     |                                  |                 |                  |                                  |                     |                              |                                |                             |                       |                           |
| Base Coat                        | 7.68             | 61.20%  | 1.11800                | 74.000                              | 4.70                             | 388.84          | 1703.12          | 421.12                           | 61%                 | Catalytic Oxidizer/Waterwash | 14%                            | 1471.50                     | 95%                   | 21.06                     |
| Clear Coat                       | 7.7              | 56.20%  | 1.79000                | 74.000                              | 4.30                             | 569.58          | 2494.75          | 759.15                           | 61%                 | Catalytic Oxidizer/Waterwash | 14%                            | 2155.47                     | 95%                   | 37.96                     |
|                                  |                  |   |                        |                                     |                                  | 4198            | 1180             |                                  |                     |                              |                                | 3627                        | 59.01                 |                           |

**METHODOLOGY**

The following values were provided by the Permittee: density, weight% volatile, gal of mat., maximum production rate, pounds of VOC per gallon of coating, and transfer efficiency.

PTE VOC (lb/hr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* (lb VOC/gal coating)

PTE VOC (ton/yr) = PTE VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

PTE PM/PM<sub>10</sub> (ton/yr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* Density (lb/gal) \* (1 - Wt.% Volatiles) \* (1 - Transfer efficiency) \* (8760 hr/yr) \* (1 ton/2000 lb)

Overall VOC Control Efficiency - value provided by Permittee

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**Significant Source Modification Number:** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar  
**Date:** July 1, 2016

**NEW COMBUSTION UNITS**

| Heat Input Capacity<br>MMBtu/hr | HHV<br>mmBtu<br>mmscf | Potential Throughput<br>MMCF/yr |
|---------------------------------|-----------------------|---------------------------------|
| 79.5                            | Elpo oven zones       | 1020                            |
| 9                               | 3 RTOs                | 1848.6                          |
| 126.75                          | other heaters         | 600                             |
| 215.3                           | Total                 | MMCF/yr Limit                   |

| Emission Factor in lb/MMCF    | Pollutant |       |               |     |             |     |      |
|-------------------------------|-----------|-------|---------------|-----|-------------|-----|------|
|                               | PM*       | PM10* | direct PM2.5* | SO2 | NOx         | VOC | CO   |
| Potential Emission in tons/yr | 1.8       | 7.0   | 7.0           | 0.6 | 100         | 5.5 | 84   |
| Limited PTE                   | 0.6       | 2.3   | 2.3           | 0.2 | **see below | 1.7 | 25.2 |

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPS Calculations**

| Emission Factor in lb/MMcf    | HAPs - Organics    |                            |                         |                   |                    | Total - Organics |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|------------------|
|                               | Benzene<br>2.1E-03 | Dichlorobenzene<br>1.2E-03 | Formaldehyde<br>7.5E-02 | Hexane<br>1.8E+00 | Toluene<br>3.4E-03 |                  |
| Potential Emission in tons/yr | 1.941E-03          | 1.109E-03                  | 6.932E-02               | 1.664E+00         | 3.143E-03          | 1.739E+00        |
| Limited PTE                   | 6.300E-04          | 3.600E-04                  | 2.250E-02               | 5.400E-01         | 1.020E-03          | 5.645E-01        |

| Emission Factor in lb/MMcf    | HAPs - Metals   |                    |                     |                      |                   | Total - Metals |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|----------------|
|                               | Lead<br>5.0E-04 | Cadmium<br>1.1E-03 | Chromium<br>1.4E-03 | Manganese<br>3.8E-04 | Nickel<br>2.1E-03 |                |
| Potential Emission in tons/yr | 4.622E-04       | 1.017E-03          | 1.294E-03           | 3.512E-04            | 1.941E-03         | 5.065E-03      |
| Limited PTE                   | 1.500E-04       | 3.300E-04          | 4.200E-04           | 1.140E-04            | 6.300E-04         | 1.644E-03      |
| Unlimited Total HAPs          |                 |                    |                     |                      |                   | 1.744E+00      |
| Unlimited Worst HAP           |                 |                    |                     |                      |                   | 1.664E+00      |
| Limited Total HAPs            |                 |                    |                     |                      |                   | 5.662E-01      |
| Limited Worst HAP             |                 |                    |                     |                      |                   | 5.400E-01      |

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Greenhouse Gas Calculations**

| Emission Factor in lb/MMcf            | Greenhouse Gas |         |        |
|---------------------------------------|----------------|---------|--------|
|                                       | CO2            | CH4     | N2O    |
| Potential Emission in tons/yr         | 120,000        | 2.3     | 2.2    |
| Limited Potential Emissions           | 110,917        | 2.1     | 2.0    |
| Summed Potential Emissions in tons/yr | 36,000         | 0.7     | 0.7    |
| Limited Summed Potential Emissions    |                | 110,921 | 36,001 |
| CO2e Total in tons/yr                 |                | 111,576 |        |
| Limited CO2e Total                    |                | 36,214  |        |

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential

## Appendix A: Emission Calculations

### Miscellaneous Emissions

**Company Name:** General Motors LLC Fort Wayne Assembly

**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783

**Part 70 Operating Permit Renewal No.:** 003-33417-00036

**Significant Source Modification Number** 003-37324-00036

**Significant Permit Modification Number:** 003-37339-00036

**Reviewer:** Phillip Joseph/Amal Agharkar

**Date** July 1, 2016

| NEW EMISSION UNITS                |   |                     |                            |
|-----------------------------------|---|---------------------|----------------------------|
|                                   | Outlet<br>Grain<br>Loading<br>(gr/dscf) | Flow Rate<br>(acfm) | PM/PM10/PM<br>2.5 (ton/yr) |
| <b>BODY SHOP</b>                  |   |                     |                            |
| Grinding and Machining Operations | 0.03                                    | 4000                | 4.51                       |

Meet the insignicant actvity under 326 IAC 2-7-1(21)(J)(xxiii)

### **Methodology**

PTE PM/PM10 (ton/yr) = Grain Loading (gr/dsf) \* Airflow (acfm) \* (60 min/hr) \* (8760 hr/yr) \* (1 lb/7000 gr) \* (1 ton/2000 lb)

**Appendix A: Emission Calculations**  
**Natural Gas Combustion Only**  
**MMBTU/HR >100**

Page 10 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

| Emission Factor in lb/MMCF                  |                                |                                | Pollutant                     |       |     |             |     |      |
|---|--------------------------------|--------------------------------|-------------------------------|-------|-----|-------------|-----|------|
|   |                                |                                | PM*                           | PM10* | SO2 | NOx         | VOC | CO   |
|   |                                |                                | 1.9                           | 7.6   | 0.6 | 190.0       | 5.5 | 84.0 |
|   |                                |                                |                               |       |     | 100.0       |     |      |
|   |                                |                                |                               |       |     | **see below |     |      |
| Emissions Unit                              | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |       |     |             |     |      |
| Boiler 004 - Alternative Operating Scenario | 228                            | 1902.171                       | 1.8                           | 7.2   | 0.6 | 95.1        | 5.2 | 79.9 |
| Boiler 005 - Alternative Operating Scenario | 228                            | 1902.171                       | 1.8                           | 7.2   | 0.6 | 95.1        | 5.2 | 79.9 |

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

|   |                                |                                | HAPs - Organics               |                 |              |         |         |
|---|--------------------------------|--------------------------------|-------------------------------|-----------------|--------------|---------|---------|
|   |                                |                                | Benzene                       | Dichlorobenzene | Formaldehyde | Hexane  | Toluene |
| Emission Factor in lb/MMCF                  |                                |                                | 2.1E-03                       | 1.2E-03         | 7.5E-02      | 1.8E+00 | 3.4E-03 |
| Emissions Unit                              | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |                 |              |         |         |
| Boiler 004 - Alternative Operating Scenario | 228                            | 1902.171                       | 2.0E-03                       | 1.1E-03         | 7.1E-02      | 1.7E+00 | 3.2E-03 |
| Boiler 005 - Alternative Operating Scenario | 228                            | 1902.171                       | 2.0E-03                       | 1.1E-03         | 7.1E-02      | 1.7E+00 | 3.2E-03 |

|   |                                |                                | HAPs - Metals                 |         |          |           |         | Total HAPs<br>(Organics+Metals) |
|---|--------------------------------|--------------------------------|-------------------------------|---------|----------|-----------|---------|---------------------------------|
|   |                                |                                | Lead                          | Cadmium | Chromium | Manganese | Nickel  |                                 |
| Emission Factor in lb/MMCF                  |                                |                                | 5.0E-04                       | 1.1E-03 | 1.4E-03  | 3.8E-04   | 2.1E-03 |                                 |
| Emissions Unit                              | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |         |          |           |         |                                 |
| Boiler 004 - Alternative Operating Scenario | 228                            | 1902.171                       | 4.8E-04                       | 1.0E-03 | 1.3E-03  | 3.6E-04   | 2.0E-03 | 1.8E+00                         |
| Boiler 005 - Alternative Operating Scenario | 228                            | 1902.171                       | 4.8E-04                       | 1.0E-03 | 1.3E-03  | 3.6E-04   | 2.0E-03 | 1.8E+00                         |

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas = 1020 MMBtu/MMCF

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) \* (8,760 hrs/yr) \* (1 MMCF/1,050 MMBtu)

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) \* Emission Factor (lb/MMCF) \*(1 ton/2,000 lb)

**Greenhouse Gas Emissions**

|   |                                |                                | CO2                        | CH4  | N2O  | Subtotal | CO2e     |
|---|--------------------------------|--------------------------------|----------------------------|------|------|----------|----------|
| Emission Factor in lb/MMcf                  |                                |                                | 120000.0                   | 2.30 | 2.20 | -        | -        |
| Emissions Unit                              | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential to Emit (ton/yr) |      |      |          |          |
| Boiler 004 - Alternative Operating Scenario | 228                            | 1958.118                       | 117487.1                   | 2.3  | 2.2  | 117491.5 | 118185.2 |
| Boiler 005 - Alternative Operating Scenario | 228                            | 1958.118                       | 117487.1                   | 2.3  | 2.2  | 117491.5 | 118185.2 |

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2

SCC #1-02-006-02, 1-01-006-02, 1-03-006-02,

and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x

CO2 GWP (1) + CH4 Potential Emission ton/yr x

CH4 GWP (25) + N2O Potential Emission ton/yr

x N2O GWP (298).

**Appendix A: Emission Calculations**  
**Natural Gas Combustion Only**  
**MMBTU/HR < 100**

Page 11 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number:** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

| Emission Factor in lb/MMCF  |                                |                                | Pollutant                     |       |       |             |       |        |
|---|--------------------------------|--------------------------------|-------------------------------|-------|-------|-------------|-------|--------|
|   |                                |                                | PM*                           | PM10* | SO2   | NOx         | VOC   | CO     |
|   |                                |                                | 1.9                           | 7.6   | 0.6   | 100.0       | 5.5   | 84.0   |
|   |                                |                                |                               |       |       | **see below |       |        |
| Emissions Unit  | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |       |       |             |       |        |
| 007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:               | 50.6                           | 422.149                        | 0.401                         | 1.604 | 0.127 | 21.107      | 1.161 | 17.730 |
| MOD 1 - MOD10: Natural gas fired air supply houses each contain two 12.6 MMBtu/hr burners                     | 252                            | 2102.400                       | 1.997                         | 7.989 | 0.631 | 105.120     | 5.782 | 88.301 |
| Thermal Incinerators for ELPO Dipping System (006)  | 50                             | 417.143                        | 0.396                         | 1.585 | 0.125 | 20.857      | 1.147 | 17.520 |
| RTO for Primer Surfer System (010)  | 16                             | 133.486                        | 0.127                         | 0.507 | 0.040 | 6.674       | 0.367 | 5.606  |
| Catalytic oxidizers for Topcoat system (008) - 10 oxidizers with combined heat input capacity:                | 81                             | 675.771                        | 0.642                         | 2.568 | 0.203 | 33.789      | 1.858 | 28.382 |
| Insignificant Activities: Space heaters, process heaters, or boilers with heat input capacities ≤ 10 MMBtu/hr | 10                             | 83.429                         | 0.079                         | 0.317 | 0.025 | 4.171       | 0.229 | 3.504  |

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

| Emission Factor in lb/MMCF  |                                |                                | HAPs - Organics               |                 |              |         |         |
|---|--------------------------------|--------------------------------|-------------------------------|-----------------|--------------|---------|---------|
|   |                                |                                | Benzene                       | Dichlorobenzene | Formaldehyde | Hexane  | Toluene |
|   |                                |                                | 2.1E-03                       | 1.2E-03         | 7.5E-02      | 1.8E+00 | 3.4E-03 |
| Emissions Unit  | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |                 |              |         |         |
| 007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity: | 50.6                           | 422.149                        | 4.4E-04                       | 2.5E-04         | 1.6E-02      | 3.8E-01 | 7.2E-04 |
| MOD 1 - MOD10: Natural gas fired air supply houses each contain two 12.6 MMBtu/hr burners       | 252                            | 2102.400                       | 2.2E-03                       | 1.3E-03         | 7.9E-02      | 1.9E+00 | 3.6E-03 |
| Thermal Incinerators for ELPO Dipping System (006)  | 50                             | 417.143                        | 4.4E-04                       | 2.5E-04         | 1.6E-02      | 3.8E-01 | 7.1E-04 |
| RTO for Primer Surfer System (010)  | 16                             | 133.486                        | 1.4E-04                       | 8.0E-05         | 5.0E-03      | 1.2E-01 | 2.3E-04 |
| Catalytic oxidizers for Topcoat system (008) - 10   | 81                             | 675.771                        | 7.1E-04                       | 4.1E-04         | 2.5E-02      | 6.1E-01 | 1.1E-03 |
| Insignificant Activities: Space heaters, process  | 10                             | 83.429                         | 8.8E-05                       | 5.0E-05         | 3.1E-03      | 7.5E-02 | 1.4E-04 |

| Emission Factor in lb/MMCF  |                                |                                | HAPs - Metals                 |         |          |           |         | Total HAPs (Organics + Metals) |
|---|--------------------------------|--------------------------------|-------------------------------|---------|----------|-----------|---------|--------------------------------|
|   |                                |                                | Lead                          | Cadmium | Chromium | Manganese | Nickel  |                                |
|   |                                |                                | 5.0E-04                       | 1.1E-03 | 1.4E-03  | 3.8E-04   | 2.1E-03 |                                |
| Emissions Unit  | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |         |          |           |         |                                |
| 007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity: | 50.6                           | 422.149                        | 1.1E-04                       | 2.3E-04 | 3.0E-04  | 8.0E-05   | 4.4E-04 | 4.0E-01                        |
| MOD 1 - MOD10: Natural gas fired air supply houses each contain two 12.6 MMBtu/hr burners       | 252                            | 2102.400                       | 5.3E-04                       | 1.2E-03 | 1.5E-03  | 4.0E-04   | 2.2E-03 | 2.0E+00                        |
| Thermal Incinerators for ELPO Dipping System (006)  | 50                             | 417.143                        | 1.0E-04                       | 2.3E-04 | 2.9E-04  | 7.9E-05   | 4.4E-04 | 3.9E-01                        |
| RTO for Primer Surfer System (010)  | 16                             | 133.486                        | 3.3E-05                       | 7.3E-05 | 9.3E-05  | 2.5E-05   | 1.4E-04 | 1.3E-01                        |
| Catalytic oxidizers for Topcoat system (008) - 10   | 81                             | 675.771                        | 1.7E-04                       | 3.7E-04 | 4.7E-04  | 1.3E-04   | 7.1E-04 | 6.4E-01                        |
| Insignificant Activities: Space heaters, process  | 10                             | 83.429                         | 2.1E-05                       | 4.6E-05 | 5.8E-05  | 1.6E-05   | 8.8E-05 | 7.9E-02                        |

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas = 1050 MMBtu/MMCF

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) \* (8,760 hrs/yr) \* (1 MMCF/1,050 MMBtu)

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (Supplement D 3/98)

Potential Emission (tons/yr) = Throughput (MMCF/yr) \* Emission Factor (lb/MMCF) \* (1 ton/2,000 lb)

**Greenhouse Gas Emissions**

| Emission Factor in lb/MMCF                         |            |           | Greenhouse Gas Emissions (tons/year) |     |     |          |           |
|--|------------|-----------|--------------------------------------|-----|-----|----------|-----------|
|  |            |           | CO2                                  | CH4 | N2O | Subtotal | CO2e      |
|  |            |           | 120,000                              | 2.3 | 2.2 |          |           |
| Emissions Unit                                     | Heat Input | Potential | Potential Emissions (tons/yr)        |     |     |          |           |
| 007: Various Space Heaters and Process Heaters     | 50.6       | 422.149   | 25328.9                              | 0.5 | 0.5 | 25329.9  | 25,479.4  |
| MOD 1 - MOD10: Natural gas fired air supply houses | 252        | 2102.400  | 126144.0                             | 2.4 | 2.3 | 126148.7 | 126,893.6 |
| Thermal Incinerators for ELPO Dipping System (006) | 50         | 417.143   | 25028.6                              | 0.5 | 0.5 | 25029.5  | 25,177.3  |
| RTO for Primer Surfer System (010)                 | 16         | 133.486   | 8009.1                               | 0.2 | 0.1 | 8009.4   | 8,056.7   |
| Catalytic oxidizers for Topcoat system (008) - 10  | 81         | 675.771   | 40546.3                              | 0.8 | 0.7 | 40547.8  | 40,787.2  |
| Insignificant Activities: Space heaters, process   | 10         | 83.429    | 5005.7                               | 0.1 | 0.1 | 5005.9   | 5,035.5   |

**Appendix A: Emission Calculations**  
**Boiler 004 - Landfill Gas Combustion**

Page 12 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number:** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

|                            |                                |                                | Criteria Pollutant            |       |        |                 |                 |      | GHGs |           |         |        |                |          |
|----------------------------|--------------------------------|--------------------------------|-------------------------------|-------|--------|-----------------|-----------------|------|------|-----------|---------|--------|----------------|----------|
|                            |                                |                                | PM*                           | PM10* | PM2.5* | SO <sub>2</sub> | NO <sub>x</sub> | VOC  | CO   | CO2       | N2O     | CH4    | GHG Mass-Based | CO2e     |
| Emission Factor (lb/MMCF)  |                                |                                | 1.9                           | 7.6   | 7.6    | 0.6             | 33.0            | 2.50 | 40.0 |           |         |        |                |          |
| Emission Factor (kg/MMBtu) |                                |                                |                               |       |        |                 |                 |      |      | 52.07     | 0.00063 | 0.0032 |                |          |
| Emissions Unit             | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential Emissions (tons/yr) |       |        |                 |                 |      |      |           |         |        |                |          |
| Boiler 004 - LFG (PTE)     | 228                            | 3994.560                       | 3.8                           | 15.2  | 15.2   | 1.2             | 65.9            | 5.0  | 79.9 | 114636.65 | 1.39    | 7.05   | 114645.1       | 115214.6 |

Emission Factors for SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO are as provided by the Permittee (estimates from vendor analysis (Peabody and Coen)). NO<sub>x</sub> will be verified through CEMS and CO will be verified through testing.  
\*Emission Factors for PM, PM10, and PM2.5 are from AP-42, Table 1.4-2 for natural gas. PM is filterable only. PM10 and PM2.5 are filterable and condensable PM combined. Based upon testing of a boiler firing LFG at Emission Factors for GHGs are from 40 CFR 98, Subpart C, Tables C-1 and C-2 for biogas.

**HAPs and TRS Emissions from Landfill Gas Combustion in a Boiler**

| Pollutant                 | CAS        | Molecular Weight (lb/lb-mol) | Default Concentration (ppmv) | Uncontrolled Emission Rate (lb/MMCF) | Uncontrolled HAPs Emissions (Entering the Boiler) (tons/yr) | Destruction Efficiency (%) | Controlled Emissions (Exiting the Boiler) (PTE) (tons/yr) |
|---------------------------|------------|------------------------------|------------------------------|--------------------------------------|---|----------------------------|---|
| 1,1,1-Trichloroethane     | 71-55-6    | 133.41                       | 0.48                         | 0.16609                              | 0.3317  | 87.0%                      | 0.0431  |
| 1,1,2,2-Tetrachloroethane | 79-34-5    | 167.85                       | 1.11                         | 0.48325                              | 0.9652  | 87.0%                      | 0.1255  |
| 1,1-Dichloroethane        | 75-34-3    | 98.97                        | 2.35                         | 0.60325                              | 1.2049  | 87.0%                      | 0.1566  |
| 1,1-Dichloroethene        | 75-35-4    | 96.94                        | 0.2                          | 0.05029                              | 0.1004  | 87.0%                      | 0.0131  |
| 1,2-Dichloroethane        | 107-06-2   | 98.96                        | 0.41                         | 0.10524                              | 0.2102  | 87.0%                      | 0.0273  |
| 1,2-Dichloropropane       | 78-87-5    | 112.99                       | 0.18                         | 0.05275                              | 0.1054  | 87.0%                      | 0.0137  |
| Acrylonitrile             | 107-13-1   | 53.06                        | 6.33                         | 0.87115                              | 1.7399  | 67.0%                      | 0.5742  |
| Benzene                   | 71-43-2    | 78.11                        | 1.91                         | 0.38696                              | 0.7729  | 67.0%                      | 0.2550  |
| Carbon Disulfide          | 75-15-0    | 76.13                        | 0.58                         | 0.11453                              | 0.2287  | 67.0%                      | 0.0755  |
| Carbon tetrachloride      | 56-23-5    | 153.84                       | 0.004                        | 0.00160                              | 0.0032  | 87.0%                      | 0.0004  |
| Carbonyl sulfide          | 463-58-1   | 60.07                        | 0.49                         | 0.07634                              | 0.1525  | 67.0%                      | 0.0503  |
| Chlorobenzene             | 108-90-7   | 112.56                       | 0.25                         | 0.07299                              | 0.1458  | 87.0%                      | 0.0190  |
| Chloroethane              | 75-00-3    | 64.52                        | 1.25                         | 0.20918                              | 0.4178  | 87.0%                      | 0.0543  |
| Chloroform                | 67-66-3    | 119.39                       | 0.03                         | 0.00929                              | 0.0186  | 87.0%                      | 0.0024  |
| Dichlorobenzene           | 25321-22-6 | 147                          | 0.21                         | 0.08007                              | 0.1599  | 87.0%                      | 0.0208  |
| Ethylbenzene              | 100-41-4   | 106.16                       | 4.61                         | 1.26936                              | 2.5353  | 67.0%                      | 0.8366  |
| Formaldehyde              | 50000      | 30.3                         | 4.86E+00                     | 0.38195                              | 0.7629  | 67.0%                      | 0.2517  |
| Hexane                    | 110-54-3   | 86.18                        | 6.57                         | 1.46857                              | 2.9332  | 67.0%                      | 0.9679  |
| Hydrogen Chloride         | 7647-01-0  | 36.5                         | 42                           | 3.97618                              | 7.9416  | 87.0%                      | 1.0324  |
| Mercury                   | 7439-97-6  | 200.61                       | 0.000292                     | 0.00015                              | 0.0003  | 0.0%                       | 0.0003  |
| Methyl isobutyl ketone    | 108-10-1   | 100.16                       | 1.87                         | 0.48580                              | 0.9703  | 67.0%                      | 0.3202  |
| Methylene Chloride        | 75-09-2    | 84.94                        | 14.3                         | 3.15045                              | 6.2923  | 87.0%                      | 0.8180  |
| Tetrachloroethylene       | 127-18-4   | 165.83                       | 3.73                         | 1.60434                              | 3.2043  | 87.0%                      | 0.4166  |
| Trichloroethene           | 79-01-6    | 131.4                        | 2.82                         | 0.96110                              | 1.9196  | 87.0%                      | 0.2495  |
| Toluene                   | 108-88-3   | 92.13                        | 39.3                         | 9.39113                              | 18.7567   | 67.0%                      | 6.1887  |
| Vinyl chloride            | 75-01-4    | 62.5                         | 7.34                         | 1.18987                              | 2.3765  | 87.0%                      | 0.3089  |
| Xylenes                   | 1330-20-7  | 106.16                       | 12.1                         | 3.33174                              | 6.6544  | 67.0%                      | 2.1960  |
| <b>Total HAPs</b>         |            |                              |                              |                                      | <b>60.90</b>  |                            | 15.02   |
| Hydrogen Sulfide          | 7783-06-4  | 34.08                        | 35.5                         | 3.13799                              | 6.2675  | 95.0%                      | 0.3134  |
| Methyl Mercaptan          | 74-93-1    | 48.11                        | 2.49                         | 0.31071                              | 0.6206  | 95.0%                      | 0.0310  |
| Dimethyl Sulfide          | 75-18-3    | 62.13                        | 7.82                         | 1.26018                              | 2.5169  | 95.0%                      | 0.1258  |
| <b>TRS</b>                |            |                              |                              |                                      |   |                            | <b>0.47</b>   |

Landfill Gas HAPs and TRS Compounds (default concentrations from AP-42 Tables 2.4-1 and 2.4-2, 11/98 (SCCs 5-01-004-02, 5- Destruction Efficiencies are from Table 2.4-3 in AP-42 for boilers/steam turbines. The lower end of the control efficiency range was used (67% for non-

**Methodology**

**Criteria Pollutants**

Potential Throughput (MMCF/yr) is based on the maximum capacity of the burner (228 MMBtu/hr) and a LFG heating value of 500 MMBtu/MMCF as provided by the Permittee.  
Potential Emissions (tons/yr) = Flow Rate (MMCF/yr) \* Emission Factor (lb/MMCF) \* (1 ton / 2000 lb)

**HAPs and TRS Compounds**

Uncontrolled Emission Rate (lb/MMCF) = [Default Concentration (cf/MMCF)] \* [Molecular Weight (lb/lb-mol)] \* [1/Gas Constant (0.7302 cf-atm/lb-mole-R)] \* [Pressure (1 atm)] \* [1/Temperature (528 R)]

Normal Temperature and Pressure are assumed

Uncontrolled Emissions (tons/yr) = Pollutant Entering the Boiler = Landfill Gas Throughput (MMCF/yr) \* Uncontrolled Emission Rate

Controlled Emissions (tons/yr) = Pollutant Emissions Exiting the Boiler = Uncontrolled Emissions (tons/yr) \* (1 - Destruction

**GHGs:**

CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub> (ton/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (kg/MMBtu) x (10000 g/kg) x (1 g/453.6 lb) x (1 ton/2000 lb) x (8760 hr/yr)

GHG Mass-Based (ton/yr) = CO<sub>2</sub> (ton/yr) + N<sub>2</sub>O (ton/yr) + CH<sub>4</sub> (ton/yr)

Where: CO<sub>2</sub>e = carbon dioxide equivalent (ton/yr)  
GHGi = mass emission rate of each greenhouse gas (ton/yr)  
GWPI = global warming potential for each greenhouse gas  
n = number of greenhouse gases emitted  
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO<sub>2</sub>, 21 for CH<sub>4</sub>, 310 for N<sub>2</sub>O

**Appendix A: Emissions Calculations**  
**LFG Combustion - Criteria Pollutant Emissions**

Page 13 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number:** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar  
**Application Date:** April, 2014

**GM Fort Wayne Assembly - LFG Generator Project**

| Engine Information                    | Each Unit    | Total (all 4 Units) |
|---------------------------------------|--------------|---------------------|
| Genset Power, BHP                     | 2242         | 8968                |
| Number of Engines                     | 4            |                     |
| Operating time (hours/yr)             | 8760         |                     |
| Fuel Consumption (Btu/bhp-hr)         | 6511         |                     |
| LFG Heat Value (Btu/ft <sup>3</sup> ) | 453.8        |                     |
| LFG flow rate (MMft <sup>3</sup> /yr) | 255.8        | 1023.2              |
| LFG flow rate (ft <sup>3</sup> /hour) | 29201        | 116803.65           |
| LFG flow rate (ft <sup>3</sup> /min)  | 486.68       | 1946.73             |
| conversion factor - 1 gram =          | 0.0022046226 | pounds              |

| Pollutant           | Emission Factor | Units    | Source                            |
|---------------------|-----------------|----------|-----------------------------------|
| NOx                 | 0.6             | g/bhp-hr | Manufacturer Data                 |
| CO                  | 4.22            | g/bhp-hr | Manufacturer Data                 |
| VOC                 | 0.56            | g/bhp-hr | Manufacturer Data                 |
| *PM (condensable)   | 0.044           | lb/MMBtu | Stack test data - source supplied |
| *PM10 (filterable)  | 0.044           | lb/MMBtu |                                   |
| *PM2.5 (filterable) | 0.044           | lb/MMBtu |                                   |
| SO2                 | 250.00          | ppm      | Stack test data - source supplied |

\* Particulates (PM, PM10, PM2.5) and SO2 emission factors were supplied by the source, based on stack test data of like units fueled by LFG in Michigan.

| Criteria Pollutant Emissions from Engine Generators   |              |              |              |             |              |              |               |
|---|--------------|--------------|--------------|-------------|--------------|--------------|---------------|
| New Emission Units / Process Descriptions   | PM*          | PM10**       | PM2.5***     | SO2         | NOx          | VOC          | CO            |
| Four (4) LFG 4-stroke Lean Burn Engines - identified as Gen 1- Gen 4 (2242 HP each) (lb/hr)   | 2.569        | 2.569        | 2.569        | 4.922       | 11.86        | 11.07        | 83.43         |
| Four (4) LFG 4-stroke Lean Burn Engines - identified as Gen 1- Gen 4 (2242 HP each) (Tons/yr) | <b>11.25</b> | <b>11.25</b> | <b>11.25</b> | <b>21.6</b> | <b>51.96</b> | <b>48.49</b> | <b>365.44</b> |

\* PM is filterable only

\*\*PM10 is filterable only

\*\*\*PM2.5 is condensable only

**Methodology**

PTE PM, PM10, PM2.5 (lb/hr) = EF (lb/MMBtu) x Total Genset Power (Bhp) x Total Fuel Consumption (Btu/Bhp-hr) / 1,000,000

PTE PM, PM10, PM2.5 (ton/yr) = PTE PM, PM10, PM2.5 (lb/hr) x 8760 (hrs/yr) x 1/2000 (tons/lbs)

SO<sub>2</sub> (tons/year) = Flow Rate (ft<sup>3</sup>/min) x Emission Factor (ppmv) /1,000,000 x 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460) x Mole weight (lbs/lbs mole) x 60 min/hour x 8760 hours/year x 1 ton/2000 lbs

PTE SO<sub>2</sub> (lb/hr) = PTE SO<sub>2</sub> (tons/yr) x 2000 (lbs/yr) / 8760 (hrs/yr)

PTE NOx, VOC, CO (lb/hr) = EF (g/Bhp-hr) x Total Genset Power (Bhp) x conversion factor (pounds/grams)

PTE NOx, VOC, CO (ton/yr) = NOx, VOC, CO (lb/hr) x 8760 (hrs/yr) x 1/2000 (tons/lbs)

**Appendix A: Emissions Calculations**  
**LFG Combustion - Hazardous Air Pollutant Emissions**

Page 14 of 22 TSD App. A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 Lafayette Center Rd., Roanoke, IN 46783  
**County:** Allen  
**SIC Code:** 3711  
**Operating Permit Renewal No.:** T003-33417-00036  
**Reviewers:** Phillip Joseph/Amal Agharkar  
**Application Date:** April, 2014

| CAS#  | HAP   | MW     | LFG flow rate (MMft <sup>3</sup> /yr) |                                  | Emissions (tons/year)        |
|---|---|--------|---------------------------------------|----------------------------------|------------------------------|
|   |   |        | ppmv                                  | Emission Factor* (lb/MMscf)      |                              |
|   | 1,1,1-Trichloroethane (methyl 71556 chloroform)   | 133.41 | 0.48                                  | 0.005                            | 0.002                        |
|   | 79345 1,1,2,2-Tetrachloroethane   | 167.85 | 1.11                                  | 0.014                            | 0.007                        |
|   | 1,1-Dichloroethane (ethylidene 75343 dichloride)  | 98.97  | 2.35                                  | 0.017                            | 0.009                        |
|   | 75354 1,1-Dichloroethene (vinylidene chloride)  | 96.94  | 0.2                                   | 0.001                            | 0.001                        |
|   | 107062 1,2-Dichloroethane (ethylene dichloride 1,2-Dichloropropane (propylene 78875 dichloride) | 98.96  | 0.41                                  | 0.003                            | 0.002                        |
|   | 107131 Acrylonitrile  | 112.99 | 0.18                                  | 0.002                            | 0.001                        |
|   | 71432 benzene   | 53.06  | 6.33                                  | 0.025                            | 0.013                        |
|   | 75150 Carbon disulfide  | 78.11  | 1.91                                  | 0.011                            | 0.006                        |
|   | 56235 Carbon tetrachloride  | 76.13  | 0.58                                  | 0.003                            | 0.002                        |
|   | 463581 Carbonyl sulfide   | 153.84 | 0.004                                 | 0.000                            | 0.000                        |
|   | 108907 Chlorobenzene  | 60.87  | 0.49                                  | 0.002                            | 0.001                        |
|   | 75003 Chloroethane (ethyl chloride)   | 112.56 | 0.25                                  | 0.002                            | 0.001                        |
|   | 67663 Chloroform  | 64.52  | 1.25                                  | 0.006                            | 0.003                        |
|   | 106467 Dichlorobenzene  | 119.39 | 0.03                                  | 0.000                            | 0.000                        |
|   |   | 147    | 0.21                                  | 0.002                            | 0.001                        |
|   | 75092 Dichloromethane (methylene chloride)  | 84.94  | 14.3                                  | 0.090                            | 0.046                        |
|   | 100414 Ethylbenzene   | 106.16 | 4.61                                  | 0.036                            | 0.018                        |
|   | 106934 Ethylene dibromide   | 187.88 | 0.001                                 | 0.000                            | 0.000                        |
|   | 110543 Hexane   | 86.18  | 6.57                                  | 0.042                            | 0.021                        |
|   | 0 Mercury (total)   | 200.61 | 0.000292                              | 0.000                            | 0.000                        |
|   | 78933 Methyl ethyl ketone   | 72.11  | 7.09                                  | 0.038                            | 0.019                        |
|   | 108101 Methyl isobutyl ketone   | 100.16 | 1.87                                  | 0.014                            | 0.007                        |
|   | 127184 Perchloroethylene (tetrachloroethylene)  | 165.83 | 3.73                                  | 0.046                            | 0.023                        |
|   | 108883 Toluene  | 92.13  | 39.3                                  | 0.267                            | 0.137                        |
|   | 79016 Trichloroethylene (trichloroethene)   | 131.4  | 2.82                                  | 0.027                            | 0.014                        |
|   | 75014 Vinyl chloride  | 62.5   | 7.34                                  | 0.034                            | 0.017                        |
|   | 1330207 Xylenes   | 106.16 | 12.1                                  | 0.095                            | 0.048                        |
|   |   |        |                                       | <b>Emission Factor** (g/BHP)</b> | <b>Emissions (tons/year)</b> |
| 50000 Formaldehyde  |   |        |                                       | 0.42                             | 36.34                        |
| <b>Note:</b>  |   |        |                                       | <b>Tons/yr HAP</b>               | <b>36.74</b>                 |
| 379.5 scf/lb-mol  |   |        |                                       |                                  |                              |
| 97.2% IC Engine Destruction Efficiency AP-42 Table 2.4-2 except for Mercury |   |        |                                       |                                  |                              |

\*Emission Factors for HAPs are from AP-42 2.4 Municipal Solid Waste Landfills Table 2.4-1

\*\*Vendor Emission Factor

**Landfill Gas Greenhouse Gas Emissions**

|  |           |
|--|-----------|
| Maximum Output Horsepower Rating (hp)                                | 8968      |
| Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)                   | 6511      |
| Maximum Hours Operated per Year (hr/yr)                              | 8760      |
| Potential Fuel Usage (MMBtu/yr)                                      | 511502    |
| Landfill Gas (50%CH <sub>4</sub> / 50% CO <sub>2</sub> ) (MMBtu/scf) | 0.0005025 |

Gas Flow Rate 1,947 scfm

| CO <sub>2</sub> |                            |           |     |                                   |
|-----------------|----------------------------|-----------|-----|-----------------------------------|
| Pollutant       | Emission Factor (Kg/MMBtu) | PTE (TPY) | GWP | Emissions (TPY CO <sub>2</sub> e) |
| CO <sub>2</sub> | 52.07                      | 29,449    | 1   | 29,449                            |
| <b>Total</b>    |                            |           |     | <b>29,449</b>                     |

**GHG as CO<sub>2</sub>e**

| Pollutant        | Emission Factor (Kg/MMBtu) | PTE (TPY) | GWP  | Emissions (TPY CO <sub>2</sub> e) |
|------------------|----------------------------|-----------|------|-----------------------------------|
| CH <sub>4</sub>  | 3.20E-03                   | 1.8       | 25   | 38                                |
| N <sub>2</sub> O | 6.30E-04                   | 0.4       | 2.98 | 110                               |
| <b>Total</b>     |                            |           |      | <b>148</b>                        |

**Total 29,598**

**Methodology:**

CO<sub>2</sub> Emission Factor from 40 CFR 98 Subpart C Table C-1.

CH<sub>4</sub> and N<sub>2</sub>O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Gas Flow Rate (scfm) = Potential Fuel Usage (MMBtu/yr) / Landfill Gas EF (MMBtu/scf) \* 8760 (hrs/yr) \* 60 (min/hr)

PTE (ton/yr) = max flow rate capacity (scfm) \* EF (kg/MMBtu) \* LFG Heat Value (MMBtu/scf) \* 2.2 lb/kg \* 8760 hr/yr \* 1ton/2000lbs \* 60 min/hr

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

CO<sub>2</sub>e (tons/yr) = Potential Emission (ton/yr) x GWP



**Appendix A: Emissions Calculations**  
**VOC and Particulate**  
**From Surface Coating Operations**

Page 15 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number:** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

**ELPO Dipping System**

| $E_v = \frac{A_v \cdot T_f \cdot (1 ft / 12,000 mil) \cdot (7.48 gal / ft^3) \cdot V_C}{S_C \cdot e_T}$ | V <sub>C</sub> (lb VOC/gal solids/gal coating)<br>V <sub>C</sub> = VOC content of coating as applied, less water (lb VOC/gal coating, less water) - value provided by Permittee | S <sub>C</sub> (gal solids/gal coating) | A <sub>V</sub> (ft <sup>2</sup> /vehicle) | T <sub>F</sub> (mil) | e <sub>T</sub> (fraction of total coating solids used that remains on coated parts) | E <sub>V</sub> (lb VOC/vehicle) | Maximum Production Rate (vehicles/hr) | PTE VOC (lb/hr) | PTE VOC (ton/yr) | Thermal Incinerator Overall Control Efficiency | Controlled PTE VOC (ton/yr) |
|---|---|---|---|----------------------|---|---------------------------------|---------------------------------------|-----------------|------------------|--|-----------------------------|
| <b>ELPO Dipping System (006)</b>  |   |   |   |                      |   |                                 |                                       |                 |                  |  |                             |
| ELPO  | 0.741   | 0.9068                                  | 1270                                      | 1.70                 | 1.0   | 1.10                            | 74                                    | 81.38           | 356.4            | 0.57   | 153.27                      |

**Methodology**

V<sub>C</sub> = VOC content of coating as applied, less water (lb VOC/gal coating, less water) - value provided by Permittee

S<sub>C</sub> = Solids in coating as applied (gal solids/gal coating) - value provided by Permittee

A<sub>V</sub> = Area coated per vehicle (ft<sup>2</sup>/vehicle) - value provided by Permittee

T<sub>F</sub> = Thickness of the dry coating film (mil) - value provided by Permittee

e<sub>T</sub> = Transfer efficiency fraction (fraction of total coating solids used that remains on coated parts) - value provided by Permittee

E<sub>V</sub> = Emission Factor for VOC (lb VOC/vehicle)

Per AP-42, Chapter 4, Section 4.2.2.8, Automobile and Light Duty Truck Surface Coating Operations (8/82), the VOC emission factor may be determined by the equation below:

Potential VOC (lb/hr) = E<sub>V</sub> (lb VOC/vehicle) \* Production Rate (vehicles/hr)

Potential VOC (ton/yr) = Potential VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

Thermal Incinerator Overall Control Efficiency = Capture Efficiency (60%) \* Destruction Efficiency (95%) - values submitted by Permittee

Controlled PTE VOC (ton/yr) = PTE VOC (ton/yr) \* (1 - Capture and Destruction Efficiency)

**Primer and Top Coat Systems**

| Process/Material                     | Density (lb/gal) | Weight % Volatile (H <sub>2</sub> O & Organics) | Gal of Mat. (gal/unit) | Maximum Production Rate (unit/hour) | Pounds VOC per gallon of coating | PTE VOC (lb/hr) | PTE VOC (ton/yr) | PTE PM/PM <sub>10</sub> (ton/yr) | Transfer Efficiency | VOC/PM Control               | Overall VOC Control Efficiency | Controlled PTE VOC (ton/yr) | PM Control Efficiency | Controlled PTE PM (ton/yr) |
|--------------------------------------|------------------|---|------------------------|-------------------------------------|----------------------------------|-----------------|------------------|----------------------------------|---------------------|------------------------------|--------------------------------|-----------------------------|-----------------------|----------------------------|
| <b>Primer Surfacers System (010)</b> |                  |   |                        |                                     |                                  |                 |                  |                                  |                     |                              |                                |                             |                       |                            |
| Primer                               | 9.70             | 28.00%  | 0.55000                | 74.000                              | 4.00                             | 162.80          | 713.06           | 224.10                           | 82%                 | RTO/Waterwash                | 90.50%                         | 67.74                       | 95%                   | 11.21                      |
| <b>Top Coat System (008)</b>         |                  |   |                        |                                     |                                  |                 |                  |                                  |                     |                              |                                |                             |                       |                            |
| Base Coat                            | 7.68             | 61.20%  | 1.11800                | 74.000                              | 4.70                             | 388.84          | 1703.12          | 421.12                           | 61%                 | Catalytic Oxidizer/Waterwash | 14%                            | 1471.50                     | 95%                   | 21.06                      |
| Clear Coat                           | 7.7              | 56.20%  | 1.79000                | 74.000                              | 4.30                             | 569.58          | 2494.75          | 759.15                           | 61%                 | Catalytic Oxidizer/Waterwash | 14%                            | 2155.47                     | 95%                   | 37.96                      |
|                                      |                  |   |                        |                                     |                                  |                 |                  |                                  |                     |                              |                                | 4198                        | 1180                  |                            |
|                                      |                  |   |                        |                                     |                                  |                 |                  |                                  |                     |                              |                                | 3627                        |                       | 59.01                      |

**Note: Primer line (010) was reconfigured under permit action no. 003-29630-00036, issued October 7, 2010, using Actual-to-Projected-Actual (ATPA) analysis.**

**METHODOLOGY**

The following values were provided by the Permittee: density, weight% volatile, gal of mat., maximum production rate, pounds of VOC per gallon of coating, and transfer efficiency.

PTE VOC (lb/hr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* (lb VOC/gal coating)

PTE VOC (ton/yr) = PTE VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

PTE PM/PM<sub>10</sub> (ton/yr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* Density (lb/gal) \* (1 - Wt.% Volatiles) \* (1 - Transfer efficiency) \* (8760 hr/yr) \* (1 ton/2000 lb)

Overall VOC Control Efficiency - value provided by Permittee

**Underbody Robotic Sealer Operation**

| Process/Material         | Gal of Mat. (gal/unit) | Maximum Production Rate (unit/hour) | Pounds VOC per gallon of coating | PTE VOC (lb/hr) | PTE VOC (ton/yr) |
|--------------------------|------------------------|-------------------------------------|----------------------------------|-----------------|------------------|
| Scenario 1: Regular Cab  | 0.04000                | 78.000                              | 0.30                             | 0.94            | 4.10             |
| Scenario 2: Extended Cab | 0.06000                | 78.000                              | 0.30                             | 1.40            | 6.15             |
| <b>Worst Case</b>        | <b>6.15</b>            |                                     |                                  |                 |                  |

**METHODOLOGY**

Underbody Robotic Sealer Operation (Stone Guard Sealer) - Coating PPG P8145

The following values were provided by the Permittee: Gal of Mat. and Maximum Production Rate

The Pounds of VOC per gallon of coating was determined based off of EPA Method 24 testing by the coating manufacturer

PTE VOC (lb/hr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* (lb VOC/gal coating)

PTE VOC (ton/yr) = PTE VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

*Note: This is a sealer with a high viscosity. The material does not atomize and there is no overspray/particulate generated.*

**Appendix A: Emission Calculations**  
**Emergency Diesel Equipment**

Page 16 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

|   |                   | Pollutant                  |                  |                 |                 |          |         |
|---|-------------------|----------------------------|------------------|-----------------|-----------------|----------|---------|
|   |                   | PM                         | PM <sub>10</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC      | CO      |
| Emission Factor in lb/hp-hr                   |                   | 0.0022                     | 0.0022           | 0.00205         | 0.031           | 0.002514 | 0.00668 |
| Emissions Unit                                | Power Output (hp) | Potential to Emit (ton/yr) |                  |                 |                 |          |         |
| Emergency Diesel Generator                    | 1600              | 0.9                        | 0.9              | 0.8             | 12.4            | 1.0      | 2.7     |
| Emergency Fire Pumps (assume 2 @ 400 hp each) | 800               | 0.4                        | 0.4              | 0.4             | 6.2             | 0.5      | 1.3     |

**Methodology**

Emission Factors are from AP 42, Table 3.3-1 for Uncontrolled Diesel Industrial Engines (SCC #2-02-001-02, 2-03-001-01)

PM emissions are assumed to equal PM<sub>10</sub> emissions.

Emergency Equipment have an assumed usage of 500 hours per year

PTE (ton/yr) = Power Output (hp) \* Emission Factor (lb/hp-hr) \* (500 hr/yr) \* (1 ton/2000 lb)

|   |                   | HAPs                       |         |         |               |              |              |          |             |
|---|-------------------|----------------------------|---------|---------|---------------|--------------|--------------|----------|-------------|
|   |                   | Benzene                    | Toluene | Xylenes | 1,3-Butadiene | Formaldehyde | Acetaldehyde | Acrolein | Naphthalene |
| Emission Factor in lb/MMBtu                   |                   | 9.3E-04                    | 4.1E-04 | 2.9E-04 | 3.9E-05       | 1.2E-03      | 7.7E-04      | 9.3E-05  | 8.5E-05     |
| Emissions Unit                                | Power Output (hp) | Potential to Emit (ton/yr) |         |         |               |              |              |          |             |
| Emergency Diesel Generator                    | 1600              | 9.5E-04                    | 4.2E-04 | 2.9E-04 | 4.0E-05       | 1.2E-03      | 7.8E-04      | 9.4E-05  | 8.6E-05     |
| Emergency Fire Pumps (assume 2 @ 400 hp each) | 800               | 4.7E-04                    | 2.1E-04 | 1.4E-04 | 2.0E-05       | 6.0E-04      | 3.9E-04      | 4.7E-05  | 4.3E-05     |

**Methodology**

Emission Factors are from AP 42, Tables 3.3-2 for Uncontrolled Diesel Engines (SCC #2-02-001-02, 2-03-001-01)

Emergency Equipment have an assumed usage of 500 hours per year

PTE (ton/yr) = Power Output (hp) \* Emission Factor (lb/MMBtu) \* (2.5425 x 10<sup>3</sup> Btu/hp-hr) \* (1 MMBtu/10<sup>6</sup> Btu) \* (500 hr/yr) \* (1 ton/2000 lb)

**Greenhouse Gas Emissions**

|   |                   | CO2                        | CH4      | N2O      | Subtotal | CO2e            |
|---|-------------------|----------------------------|----------|----------|----------|-----------------|
| Emission Factor in lb/hp-hr                   |                   | 1.1600                     | 6.35E-05 | 9.30E-06 | -        | -               |
| Emissions Unit                                | Power Output (hp) | Potential to Emit (ton/yr) |          |          |          |                 |
| Emergency Diesel Generator                    | 1600              | 8129.3                     | 0.4      | 0.1      | 8129.8   | <b>8.16E+03</b> |
| Emergency Fire Pumps (assume 2 @ 400 hp each) | 800               | 4064.6                     | 0.2      | 0.03     | 4064.9   | <b>4.08E+03</b> |

**Greenhouse Gas (CO2e) Methodology**

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

**Appendix A: Emission Calculations**  
**Other Coating and Cleaning Operations**

Page 17 of 22 TSD App A

**Company any Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

**Maximum Vehicle Capacity/hr:** 74

|  | VOC Content (lb/gal) | Maximum Use | Units of Maximum Use | PTE VOC (ton/yr) | Transfer Efficiency | PM/PM10 Emission Factor (lb solids/gallon) | PTE PM/PM10 (ton/yr) |
|--|----------------------|-------------|----------------------|------------------|---------------------|--|----------------------|
| <b>Misc sealers / adhesives / additives / solvents</b> |                      |             |                      |                  |                     |  |                      |
| Misc. Sealers/Adhesives/Additives (009)                | 1                    | 1.4         | gal/vehicle          | 454              |                     |  |                      |
| Miscellaneous Solvents (009)                           | 6.5                  | 11046       | gal/month            | 431              |                     |  |                      |
| <b>Final Repair Operations</b>                         |                      |             |                      |                  |                     |  |                      |
| Final Repair Operation (012)                           | 3.8                  | 740         | gal/month            | 17               | 50%                 | 3.36                                       | 7.45                 |
| <b>Maintenance Paint</b>                               |                      |             |                      |                  |                     |  |                      |
| Maintenance Paint Operation (013)                      | 6.5                  | 280         | gal/month            | 11               | 50%                 | 3.36                                       | 2.82                 |

**Methodology**

VOC Content and Maximum Use for Misc. Sealers/Adhesives/Additives, Misc. Solvents, Final Repair Operation, and Maintenance Paint Operation provided by the Permittee  
 PM/PM10 Emission Factor for Final Repair Operations and Maintenance Paint Operation is based on Topcoat density and % Solids.

PTE VOC (ton/yr) = VOC Content (lb/gal) \* Maximum Use (gal/vehicle) \* Maximum Vehicle Capacity (vehicles/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)  
 or PTE VOC (ton/yr) = VOC Content (lb/gal) \* Maximum Use (gal/month) \* (12 month/yr) \* (1 ton/2000 lb)

**Appendix A: Emission Calculations**  
**Gasoline Operations**

Page 18 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

**Gasoline Fill operation (014)**

|                                   | Tank Capacity (gal) | Maximum True Vapor Pressure (psia) | VOC Emission Factor (lb/1000 gal) | Maximum Use (gal/hr) | PTE VOC (ton/yr) | Max Wt% Benzene | Max Wt% Ethylbenzene | Max Wt% Xylene | Max Wt% Toluene | PTE Benzene (ton/yr) | PTE Ethylbenzene (ton/yr) | PTE Xylene (ton/yr) | PTE Toluene (ton/yr) |
|-----------------------------------|---------------------|------------------------------------|-----------------------------------|----------------------|------------------|-----------------|----------------------|----------------|-----------------|----------------------|---------------------------|---------------------|----------------------|
| Storage Tank 9                    | 20000               | 6.34                               |                                   | 370                  | 4.26             | 2.0%            | 2.0%                 | 10.0%          | 5.0%            | 0.085                | 0.085                     | 0.426               | 0.213                |
| Storage Tank 10                   | 20000               | 6.34                               |                                   | 370                  | 4.26             | 2.0%            | 2.0%                 | 10.0%          | 5.0%            | 0.085                | 0.085                     | 0.426               | 0.213                |
| Vehicle Refueling Spillage Losses | N/A                 | N/A                                | 0.7                               | 370                  | 1.13             | 2.0%            | 2.0%                 | 10.0%          | 5.0%            | 0.023                | 0.023                     | 0.113               | 0.057                |
| Total                             |                     |                                    |                                   |                      | 9.65             |                 |                      |                |                 | 0.193                | 0.193                     | 0.965               | 0.483                |

Vapor Recovery System at 90%

**Methodology**

PTE VOC (ton/yr) for Storage Tanks is based on EPA TANKS calculations provided by the Permittee for working and standing losses.

VOC Emission Factors for Vehicle Refueling Spillage Losses is from AP-42, Table 5.2-7.

Wt% HAPs provided by the Permittee

PTE VOC (ton/yr) = [VOC Emission Factor (lb/1000 gal)/1000 gal] \* Maximum Use (gal/hr) \* (8760 hr/yr) \* (1 ton /2000 lb)

PTE HAP (ton/yr) = PTE VOC (ton/yr) \* Wt% HAP

**A.3(d) Gasoline Fuel Transfer and Dispensing Operation**

|                                     | Tank Capacity (gal) | Maximum True Vapor Pressure (psia) | Throughput (gallon/day) | VOC Emission Factor (lb/1000 gal) | Total Uncontrolled VOC Loss (ton/yr) | Max Wt% Benzene | Max Wt% Ethylbenzene | Max Wt% Xylene | Max Wt% Toluene | PTE Benzene (ton/yr) | PTE Ethylbenzene (ton/yr) | PTE Xylene (ton/yr) | PTE Toluene (ton/yr) |
|-------------------------------------|---------------------|------------------------------------|-------------------------|-----------------------------------|--------------------------------------|-----------------|----------------------|----------------|-----------------|----------------------|---------------------------|---------------------|----------------------|
| Submerged Filling                   | 10500               | 6.34                               | 1300                    | 7.3                               | 1.73                                 | 2.0%            | 2.0%                 | 10.0%          | 5.0%            | 0.035                | 0.035                     | 0.173               | 0.087                |
| Vehicle Refueling Displacement Loss | 10500               | 6.34                               | 1300                    | 11                                | 2.61                                 | 2.0%            | 2.0%                 | 10.0%          | 5.0%            | 0.052                | 0.052                     | 0.261               | 0.130                |
| Vehicle Refueling Spillage Loss     | 10500               | 6.34                               | 1300                    | 0.7                               | 0.17                                 | 2.0%            | 2.0%                 | 10.0%          | 5.0%            | 0.003                | 0.003                     | 0.017               | 0.008                |
| Total                               |                     |                                    |                         |                                   | 4.51                                 |                 |                      |                |                 | 0.09                 | 0.09                      | 0.45                | 0.23                 |

**Methodology**

VOC Emission Factors for Submerged Filling, Vehicle Refueling Displacement Loss, and Vehicle Refueling Spillage Loss are from AP-42, Table 5.2-7.

PTE VOC (ton/yr) = [VOC Emission Factor (lb/1000 gal)/1000 gal] \* Maximum Use (gal/hr) \* (8760 hr/yr) \* (1 ton /2000 lb)

Wt% HAPs provided by the Permittee

PTE HAP (ton/yr) = PTE VOC (ton/yr) \* Wt% HAP

**Appendix A: Emission Calculations**  
**Storage Tanks**

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

**A.3(b) & A.3(u)(10) Storage Tanks**

|                                  | Tank Capacity (gal) | Maximum True Vapor Pressure (psia) | PTE VOC (ton/yr) | Max Wt% Ethylbenzene | Max Wt% Xylene | Max Wt% MIBK | Max Wt% Methanol | PTE Ethylbenzene (ton/yr) | PTE Xylene (ton/yr) | PTE MIBK (ton/yr) | PTE Methanol (ton/yr) |
|----------------------------------|---------------------|------------------------------------|------------------|----------------------|----------------|--------------|------------------|---------------------------|---------------------|-------------------|-----------------------|
| 1 - Solvent/Thinner              | 20000               | 1.58                               | 0.421            | 10.0%                | 40.0%          | 58.6%        |                  | 0.04                      | 0.17                | 0.25              |                       |
| 2 - Solvent/Thinner              | 20000               | 1.58                               | 0.421            | 10.0%                | 40.0%          | 58.6%        |                  | 0.04                      | 0.17                | 0.25              |                       |
| 3 - Windshield Wiper Fluid       | 10000               | 1.27                               | 0.109            |                      |                |              | 99.0%            |                           |                     |                   | 0.11                  |
| 6 - Power Steering Fluid         | 16000               | 0.004                              | 0.001            |                      |                |              |                  |                           |                     |                   |                       |
| 7 - Automatic Transmission Fluid | 16000               | 0.000186                           | 0.0001           |                      |                |              |                  |                           |                     |                   |                       |
| 8 - Reclaimed Solvent            | 20000               | 1.58                               | 0.421            | 10.0%                | 40.0%          | 58.6%        |                  | 0.04                      | 0.17                | 0.25              |                       |
| 16 - Antifreeze Coolant          | 16000               | 0.00199                            | 0.0011           |                      |                |              |                  |                           |                     |                   |                       |
| 18 - Axle Lube                   | 16000               | 0.0073                             | 0.004            |                      |                |              |                  |                           |                     |                   |                       |
| Waste Purge Solvent Tank         | 18900               | 1.58                               | 0.421            | 10.0%                | 40.0%          | 58.6%        |                  | 0.04                      | 0.17                | 0.25              |                       |
| Waste Purge Solvent Tank         | 18900               | 1.58                               | 0.421            | 10.0%                | 40.0%          | 58.6%        |                  | 0.04                      | 0.17                | 0.25              |                       |
| Total                            |                     |                                    | 2.22             |                      |                |              |                  | 0.2                       | 0.8                 | 1.2               | 0.1                   |

**Methodology**

PTE VOC (ton/yr) is based on EPA TANKS calculations provided by the Permittee.

**Appendix A: Emission Calculations**  
**Miscellaneous Emissions**

Page 20 of 22 TSD App A

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-33417-00036  
**Significant Source Modification Number** 003-37324-00036  
**Significant Permit Modification Number:** 003-37339-00036  
**Reviewer:** Phillip Joseph/Amal Agharkar

**A.3(a) Grinding and Machining Operations**

|                                   | Grain Loading<br>(gr/dscf) | Flow Rate<br>(acfm) | PM/PM10<br>(ton/yr) |
|-----------------------------------|----------------------------|---------------------|---------------------|
| Grinding and Machining Operations | 0.03                       | 4000                | 4.51                |

(small maintenance operations throughout the plant)

**Methodology**

PTE PM/PM10 (ton/yr) = Grain Loading (gr/dsf) \* Airflow (acfm) \* (60 min/hr) \* (8760 hr/yr) \* (1 lb/7000 gr) \* (1 ton/2000 lb)

**Other Insignificant Activities - Estimated PTE**

|  | PTE (ton/yr) |                  |                 |                 |            |          |            |
|--|--------------|------------------|-----------------|-----------------|------------|----------|------------|
|  | PM           | PM <sub>10</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC        | CO       | HAP        |
| (e) VOC and HAP Storage Containers   |              |                  |                 |                 | 1          |          | 1          |
| (f) Brazing equipment, cutting torches, soldering equipment, welding equipment               | 1            | 1                |                 |                 |            |          |            |
| (h) Treatment of wastewater  |              |                  |                 |                 | 0.5        |          |            |
| (i) Operations using aqueous solutions containing less than 1% VOC by weight, excluding HAPs |              |                  |                 |                 | 0.5        |          |            |
| (j) Noncontact Cooling Tower Systems   |              |                  |                 |                 | 0.5        |          |            |
| (k) Replacement or repair of ESPs, baghouse bags, and air filters                            | 0.1          | 0.1              |                 |                 |            |          |            |
| (l) Trimmers   | 0.5          | 0.5              |                 |                 |            |          |            |
| (n) Equipment used to collect released material during malfunction, spills, etc.             |              |                  |                 |                 | 0.5        |          | 0.5        |
| (u)(2) Sulfuric Acid Tank  |              |                  | 0.1             |                 |            |          |            |
| (u)(3) Grinding Operations   | 0.1          | 0.1              |                 |                 |            |          |            |
| (u)(8) Spot sanding and painting   | 0.1          | 0.1              |                 |                 | 0.1        |          |            |
| (u)(21) MIG Welding  | 0.1          | 0.1              |                 |                 |            |          |            |
| <b>Total</b>   | <b>1.9</b>   | <b>1.9</b>       | <b>0.1</b>      | <b>0</b>        | <b>3.1</b> | <b>0</b> | <b>1.5</b> |

# Appendix A: Emission Calculations

Page 21 of 22 TSD App A

## Boiler 004 Limited PTE

MMBTU/HR >100

**Company Name:** General Motors LLC Fort Wayne Assembly

**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783

**Part 70 Operating Permit Renewal No.:** 003-33417-00036

**Significant Source Modification Number:** 003-37324-00036

**Significant Permit Modification Number:** 003-37339-00036

**Reviewer:** Phillip Joseph/Amal Agharkar

### Natural Gas Combustion

|  |                                |                                | Pollutant                   |      |     |       |     |      |
|--|--------------------------------|--------------------------------|-----------------------------|------|-----|-------|-----|------|
|  |                                |                                | PM                          | PM10 | SO2 | NOx   | VOC | CO   |
| Emission Factor in lb/MMCF               |                                |                                | 1.9                         | 7.6  | 0.6 | 100.0 | 5.5 | 84.0 |
| Emissions Unit                           | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential to Emit (tons/yr) |      |     |       |     |      |
| Boiler 004 - Only Natural Gas Combustion | 228                            | 1902.171                       | 1.8                         | 7.2  | 0.6 | 95.1  | 5.2 | 79.9 |

See p. 3 for source of emission factors and emission calculations.

Heat Input Capacity (MMBtu/hr) for Natural Gas Combustion Potential = Total Boiler Heat Input Capacity

The worst case scenario of emissions from Boiler 004 would either be from combusting natural gas alone.

|                                | PM   | PM10 | SO2  | NOx   | VOC  | CO    |
|--------------------------------|------|------|------|-------|------|-------|
| Scenario 1: 100% NG Combustion | 1.81 | 7.23 | 0.57 | 95.11 | 5.23 | 79.89 |
| Worst Case                     | 1.81 | 7.23 | 0.57 | 95.11 | 5.23 | 79.89 |

### Greenhouse Gas Emissions

| Emission Factor in lb/kgal                  |                                |                                | CO2                        | CH4  | N2O  | Subtotal | CO2e    |
|---|--------------------------------|--------------------------------|----------------------------|------|------|----------|---------|
|   |                                |                                | 22300.0                    | 0.22 | 0.26 | -        | -       |
| Emissions Unit                              | Heat Input Capacity (MMBtu/hr) | Potential Throughput (kgal/yr) | Potential to Emit (ton/yr) |      |      |          |         |
| Boiler 004 - Alternative Operating Scenario | 220                            | 3200.000                       | 35680.0                    | 0.3  | 0.4  | 35680.8  | 35812.6 |

## Appendix A: Emission Calculations

### Boiler 005 Limited PTE

MMBTU/HR >100

**Company Name:** General Motors LLC Fort Wayne Assembly

**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783

**Part 70 Operating Permit Renewal No.:** 003-33417-00036

**Significant Source Modification Number** 003-37324-00036

**Significant Permit Modification Number:** 003-37339-00036

**Reviewer:** Phillip Joseph/Amal Agharkar

### Natural Gas Combustion

|  |                                |                                | Pollutant                   |      |     |       |     |      |
|--|--------------------------------|--------------------------------|-----------------------------|------|-----|-------|-----|------|
|  |                                |                                | PM                          | PM10 | SO2 | NOx   | VOC | CO   |
| Emission Factor in lb/MMCF               |                                |                                | 1.9                         | 7.6  | 0.6 | 100.0 | 5.5 | 84.0 |
| Emissions Unit                           | Heat Input Capacity (MMBtu/hr) | Potential Throughput (MMCF/yr) | Potential to Emit (tons/yr) |      |     |       |     |      |
| Boiler 005 - Only Natural Gas Combustion | 228                            | 1902.171                       | 1.8                         | 7.2  | 0.6 | 95.1  | 5.2 | 79.9 |

See p. 3 for source of emission factors and emission calculations.

Heat Input Capacity (MMBtu/hr) for Natural Gas Combustion Potential in Conjunction with No. 2 Fuel Oil Limit = Total Boiler Heat Input Capacity - Heat Input Capacity used for Combusting the Limited Amount of No. 2 Fuel Oil = 228 MMBtu/hr - [(1100 kgal/yr) \* (1 yr/8760 hr) \* (140 MMBtu/kgal)]

The worst case scenario of emissions from Boiler 005 would either be from combusting natural gas alone (up to the full heat input capacity of the boiler) or combusting No. 2 fuel oil up to the limited amount and combusting natural gas for the remainder of the boiler's capacity.

|                                | PM   | PM10 | SO2  | NOx   | VOC  | CO    |
|--------------------------------|------|------|------|-------|------|-------|
| Scenario 1: 100% NG Combustion | 1.81 | 7.23 | 0.57 | 95.11 | 5.23 | 79.89 |
| Worst Case                     | 1.81 | 7.23 | 0.57 | 95.11 | 5.23 | 79.89 |

Note: A netting analysis was conducted in CP (003) 2524 to ensure that the net emissions increases from Boiler 005 are less than the PSD significant levels for major modifications.

### Greenhouse Gas Emissions

|   |                                |                                | CO2                        | CH4  | N2O  | Subtotal | CO2e           |
|---|--------------------------------|--------------------------------|----------------------------|------|------|----------|----------------|
| Emission Factor in lb/kgal                  |                                |                                | 22300.0                    | 0.22 | 0.26 | -        | -              |
| Emissions Unit                              | Heat Input Capacity (MMBtu/hr) | Potential Throughput (kgal/yr) | Potential to Emit (ton/yr) |      |      |          |                |
| Boiler 004 - Alternative Operating Scenario | 220                            | 1100.000                       | 12265.0                    | 0.1  | 0.1  | 12265.3  | <b>12310.6</b> |





# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

## Notice of Public Comment

**August 16, 2016**

**General Motors LLC Fort Wayne Assembly**

**003-37324-00036 & 033-37339-00036**

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

**Please Note:** *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at [PPEAR@IDEM.IN.GOV](mailto:PPEAR@IDEM.IN.GOV). If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure  
PN AAA Cover.dot 2/17/2016



## Indiana Department of Environmental Management

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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

### **AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD DRAFT INDIANA AIR PERMIT**

August 16, 2016

A 30-day public comment period has been initiated for:

**Permit Number:** 003-37324-00036 & 003-37339-00036  
**Applicant Name:** General Motors LLC Fort Wayne Assembly  
**Location:** Roanoke, Allen County, Indiana

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:

<http://www.in.gov/ai/appfiles/idem-caats/>

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management  
Office of Air Quality, Permits Branch  
100 North Senate Avenue  
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at [chammack@idem.IN.gov](mailto:chammack@idem.IN.gov) or (317) 233-2414.

Affected States Notification.dot 2/17/2016



# Indiana Department of Environmental Management

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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

August 16, 2016

Mr. Matt Arbuckle  
General Motors LLC Fort Wayne Assembly  
12200 Lafayette Center Road  
Roanoke, IN 46783

Re: Public Notice  
General Motors LLC Fort Wayne Assembly  
Permit Level: Significant Source Modification &  
Significant Permit Modification  
Permit Number: 003-37324-00036 &  
003-37339-00036

Dear Mr. Arbuckle:

Enclosed is a copy of your draft Significant Source Modification, Significant Permit Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Journal Gazette in Fort Wayne, Indiana publish the abbreviated version of the public notice no later than August 18, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Allen County Public Library, 900 Library Plaza in Fort Wayne, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Amal Agharkar, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 2-8422 or dial (317) 232-8422.

Sincerely,

**Greg Hotopp**

Greg Hotopp  
Permits Branch  
Office of Air Quality

Enclosures

PN Applicant Cover letter 2/17/2016



# Indiana Department of Environmental Management

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Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

August 16, 2016

To: Allen County Public Library

From: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

**Applicant Name: General Motors LLC Fort Wayne Assembly**  
**Permit Number: 003-37324-00036 & 003-37339-00036**

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures  
PN Library.dot 2/16/2016



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

## ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

August 16, 2016

Journal Gazette  
600 W Main Street  
PO Box 100  
Fort Wayne, IN 46801

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for General Motors, LLC, Allen County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than August 18, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

**To ensure proper payment, please reference account # 100174737.**

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

*Greg Hotopp*


Greg Hotopp  
Permit Branch  
Office of Air Quality

Permit Level: Significant Source Modification & Significant Permit Modification  
Permit Number: 003-37324-00036 & 003-37339-00036

Enclosure

PN Newspaper.dot 2/17/2016

# Mail Code 61-53

|                            |   |   |   |  |
|----------------------------|---|---|---|--|
| IDEM Staff                 | GHOTOPP 8/16/2016<br>General Motors LLC Fort Wayne Assembly 003-37339/37324-00036 Draft |   |   | AFFIX STAMP<br>HERE IF<br>USED AS<br>CERTIFICATE<br>OF MAILING |
| Name and address of Sender |        | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 | Type of Mail:<br><br><b>CERTIFICATE OF MAILING ONLY</b> |  |

| Line | Article Number | Name, Address, Street and Post Office Address   | Postage | Handling Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee |
|------|----------------|---|---------|------------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|
|      |                |   |         |                  |                            |               |                 |          |          |          | Remarks        |
| 1    |                | Matt Arbuckle General Motors LLC Fort Wayne Assembly 12200 Lafayette Center Road Roanoke IN 46783-9628 (Source CAATS)             |         |                  |                            |               |                 |          |          |          |                |
| 2    |                | Michael Glinski Plant Manager General Motors LLC Fort Wayne Assembly 12200 Lafayette Center Road Roanoke IN 46783-9628 (RO CAATS) |         |                  |                            |               |                 |          |          |          |                |
| 3    |                | Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party)  |         |                  |                            |               |                 |          |          |          |                |
| 4    |                | Duane & Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 (Affected Party)  |         |                  |                            |               |                 |          |          |          |                |
| 5    |                | Allen County Public Library 900 Library Plaza, P.O. Box 2270 Fort Wayne IN 46802 (Library)  |         |                  |                            |               |                 |          |          |          |                |
| 6    |                | Mr. Jeff Coburn Plumbers & Steamfitters, Local 166 2930 W Ludwig Rd Fort Wayne IN 46818-1328 (Affected Party)                     |         |                  |                            |               |                 |          |          |          |                |
| 7    |                | Roanoke Town Council P.O. Box 328 Roanoke IN 46783 (Local Official)   |         |                  |                            |               |                 |          |          |          |                |
| 8    |                | Allen Co. Board of Commissioners 200 E Berry Street Ste 410 Fort Wayne IN 46802 (Local Official)                                  |         |                  |                            |               |                 |          |          |          |                |
| 9    |                | Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 (Health Department)                        |         |                  |                            |               |                 |          |          |          |                |
| 10   |                |   |         |                  |                            |               |                 |          |          |          |                |
| 11   |                |   |         |                  |                            |               |                 |          |          |          |                |
| 12   |                |   |         |                  |                            |               |                 |          |          |          |                |
| 13   |                |   |         |                  |                            |               |                 |          |          |          |                |
| 14   |                |   |         |                  |                            |               |                 |          |          |          |                |
| 15   |                |   |         |                  |                            |               |                 |          |          |          |                |

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