

**Commonwealth of Kentucky  
Energy and Environment Cabinet  
Department for Environmental Protection  
Division for Air Quality  
300 Sower Boulevard, 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601  
(502) 564-3999**

**Final**

**AIR QUALITY PERMIT  
Issued under 401 KAR 52:020**

**Permittee Name:** Toyota Motor Manufacturing, Kentucky, Inc.  
**Mailing Address:** 1001 Cherry Blossom Way  
Georgetown, KY 40324

**Source Name:** Toyota Motor Manufacturing, Kentucky, Inc.  
**Mailing Address:** 1001 Cherry Blossom Way  
Georgetown, KY 40324

**Source Location:** Near the intersection of Cherry Blossom Way  
and Cynthiana Road

**Permit:** V-20-026 R3  
**Agency Interest:** 7998  
**Activity:** APE20240001  
**Review Type:** Title V, Construction / Operating  
**Source ID:** 21-209-00030

**Regional Office:** Frankfort Regional Office  
300 Sower Boulevard, 1st Floor  
Frankfort, KY 40601  
(502) 564-3358

**County:** Scott

**Application**  
**Complete Date:** September 22, 2020  
**Issuance Date:** May 23, 2021  
**Revision Date:** March 28, 2025  
**Expiration Date:** May 23, 2026

*Rick Shewekah*

**For Michael J. Kennedy, P.E.**

**Director**

Signed by: Rick Shewekah

**Division for Air Quality**

# TABLE OF CONTENTS

| <b>SECTION</b>  | <b>ISSUANCE</b> | <b>PAGE</b> |
|---|-----------------|-------------|
| A. PERMIT AUTHORIZATION   | Revision 1      | 1           |
| B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS | Revision 3      | 2           |
| C. INSIGNIFICANT ACTIVITIES   | Revision 1      | 161         |
| D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS                               | Renewal         | 163         |
| E. SOURCE CONTROL EQUIPMENT REQUIREMENTS  | Renewal         | 167         |
| F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS                              | Renewal         | 199         |
| G. GENERAL PROVISIONS   | Revision 3      | 202         |
| H. ALTERNATE OPERATING SCENARIOS  | Renewal         | 209         |
| I. COMPLIANCE SCHEDULE  | Renewal         | 209         |

| <b>Permit</b> | <b>Permit Type</b> | <b>Activity #</b> | <b>Complete Date</b> | <b>Issuance Date</b> | <b>Summary of Action</b>   |
|---------------|--------------------|-------------------|----------------------|----------------------|--|
| V-20-026      | Renewal            | APE20200001       | 9/22/2020            | 5/23/2021            | Permit Renewal   |
| V-20-026 R1   | Minor Revision     | APE20220001       | 3/24/2022            | 7/1/2022             | Addition of RT12 RTO to control emissions from G22 and G26 Booths, moving replaced Concentrators and Oxidizers to an alternate operating scenario. Replacement of C08 and C09. |

|             |                   |             |           |           |  |
|-------------|-------------------|-------------|-----------|-----------|--|
| V-20-026 R2 | Minor<br>Revision | APE20220004 | 11/1/2022 | 2/20/2023 | Addition of Soft Chip to E05R, Replacement at F05, New Tanks H11, Replacements at A09, H01-19 Machining Equipment, ED Bath replacement E02, Weld Mods C06 and C17, Paint 1 Mods E02-11 |
| V-20-026 R3 | Minor<br>Revision | APE20240001 | 6/10/2024 | 3/28/2025 | Addition of EV Battery Vehicle modifications to Line 1, Two 35 HP Emergency Generators at D07, and Replacement of Spray Applicators at F04.  |

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit was issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

Toyota Motor Manufacturing, Kentucky, Incorporated (TMMK), Source ID # 21-209-00030, Agency Interest: 7998 and Toyota Motor Engineering & Manufacturing North America, Inc. (TEMA), Source ID # 21-209-00072, Agency Interest: 126184, are located on contiguous properties, belong to the same industrial grouping, and are under common control. By the definition of major stationary source in 401 KAR 51:001, TMMK and TEMA constitute one major source for PSD purpose. By the definition of major source in 401 KAR 52:001 for Title V program, they constitute one major source for non-hazardous regulated air pollutants and hazardous air pollutants, therefore, both facilities' emissions should be aggregated for the purpose of Title V, and PSD applicability determination.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE  
REGULATIONS, AND OPERATING CONDITIONS**

**ASSEMBLY#1**

**ASSEMBLY#2**

**ASSEMBLY#3**

**PRODUCTION CONTROL**

**QUALITY CONTROL**

**TOYOTA LOGISTICS**

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Description and Applicable Regulations:

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table, unless otherwise stated.

**ASSEMBLY #1, 300 BUILDING**, Operations include the following processes:

| EMISSION UNIT | OPERATION  | CONSTRUCTION COMMENCED   | CONTROL EQUIPMENT | OTHER APPLICABLE REGULATIONS     |
|---------------|--|--|-------------------|----------------------------------|
| A01           | Source Reassigned to Emission Unit A02   | July 17, 1986  | None              |                                  |
| A02           | Miscellaneous Wax Coating Operations, including hinge and hub wax.   | July 17, 1986  | None              | 401 KAR 63:002                   |
| A03           | Glass Installation, including glass primer, body primer and window sealer.   | July 17, 1986<br>Modification<br>Projected June 2025                               | None              | 401 KAR 63:002                   |
| A04           | Miscellaneous Adhesive Applications  | July 17, 1986  | None              | 401 KAR 63:002                   |
| A05           | Fluid Filling Operations, including windshield cleaner, brake fluid, antifreeze, steering fluid, transmission fluid, refrigerants, and fuel. (Insignificant Activities List) | July 17, 1986<br>December 2015<br>July 2022<br>Modification<br>Projected June 2025 | None              |                                  |
| A06           | Non-Process Cleaning Activities  | July 17, 1986  | None              | 401 KAR 59:185<br>401 KAR 63:002 |
| A07           | Process Cleaning Activities, including solvent wiping.   | July 17, 1986  | None              | 401 KAR 63:002                   |
| A08           | Process Lubrication, including hose installation. (Insignificant Activities List)  | July 17, 1986  | None              |                                  |
| A09           | Testing Operations, including Brake Tester, Drum Tester, Final Line, Off-line Vehicle Inspection/Testing, Tester Waiter, Toe Tester  | July 17, 1986<br>Modified December 20, 2022<br>Modification<br>Projected July 2025 | None              |                                  |
| A10           | Paint Hospital, including  |  |                   | 401 KAR 63:002                   |
|               | Sanding and Buffing  | July 17, 1986  | None              |                                  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>EMISSION UNIT</b> | <b>OPERATION</b>  | <b>CONSTRUCTION COMMENCED</b>    | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b>                                      |
|----------------------|---|----------------------------------|--------------------------|--|
|                      | Painting Deck   | July 17, 1986                    | None                     |  |
|                      | ED Repair   | Construction Projected July 2025 | None                     |  |
| A11                  | Raw Material Supply   | July 17, 1986                    | None                     | 401 KAR 63:002   |
| A12                  | Miscellaneous Assembly Operations, not otherwise listed (e.g., minor repairs, chassis assembly, trim installation, engine installation...). (Insignificant Activities List) | July 17, 1986                    | None                     |  |
| A13                  | General Exhausts  | July 17, 1986                    | None                     |  |
| A14                  | Battery Assembly<br>cleaner use and thermal interface application   | October, 2024                    | None                     | 401 KAR 63:002<br>*401 KAR 51:017 and 401 KAR 59:010 do not apply to A14 |

**ASSEMBLY #2, 3000 BUILDING,** Operations include the following processes:

| <b>EMISSION UNIT</b> | <b>OPERATION</b>   | <b>CONSTRUCTION COMMENCED</b>   | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|--|---------------------------------|--------------------------|-------------------------------------|
| B01                  | Source Reassigned to Emission Unit B02   | N/A                             |                          |                                     |
| B02                  | Miscellaneous Wax Coating Operations, including hinge and hub wax.   | March 22, 1991                  | None                     | 401 KAR 63:002                      |
| B03                  | Glass Installation, including glass primer, body primer and window sealer.   | March 22, 1991,<br>April 2019   | None                     | 401 KAR 63:002                      |
| B04                  | Miscellaneous Adhesive Applications  | March 22, 1991                  | None                     | 401 KAR 63:002                      |
| B05                  | Fluid Filling Operations, including windshield cleaner, brake fluid, antifreeze, steering fluid, transmission fluid, refrigerants, and fuel. (Insignificant Activities List) | March 22, 1991<br>December 2015 | None                     |                                     |
| B06                  | Non-Process Cleaning Activities  | March 22, 1991                  | None                     | 401 KAR 59:185<br>401 KAR 63:002    |
| B07                  | Process Cleaning Activities, including solvent wiping  | March 22, 1991                  | None                     | 401 KAR 63:002                      |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>EMISSION UNIT</b> | <b>OPERATION</b>  | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|---|-------------------------------|--------------------------|-------------------------------------|
| B08                  | Process Lubrication, including hose installation. (Insignificant Activities List)   | March 22, 1991                | None                     |                                     |
| B09                  | Testing Operations, including Line Off, Functional Inspection, Vibr. Toe and Strg. Test, Roll Test, Brake and Flutter test, Em. Test and Ubody Test                         | March 22, 1991                | None                     |                                     |
| B10                  | Paint Hospital, including:  |                               |                          | 401 KAR 63:002                      |
|                      | Sanding and Buffing   | March 22, 1991                | None                     |                                     |
|                      | Painting Deck   | March 22, 1991                | None                     |                                     |
| B11                  | Raw Material Supply / Storage   | March 22, 1991                | None                     |                                     |
| B12                  | Miscellaneous Assembly Operations, not otherwise listed (e.g., minor repairs, chassis assembly, trim installation, engine installation...). (Insignificant Activities List) | March 22, 1991                | None                     |                                     |
| B13                  | General Exhaust   | March 22, 1991                | None                     |                                     |

**ASSEMBLY #3, 3000 BUILDING,** Operations include the following processes:

| <b>EMISSION UNIT</b> | <b>OPERATION</b>   | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|--|-------------------------------|--------------------------|-------------------------------------|
| M01                  | Miscellaneous Wax Coating Operations, including underbody, engine, and hub wax.  | March 2014                    | None                     | 401 KAR 63:002                      |
| M02                  | Glass Installation, including glass primer, body primer and window sealer.   | March 2014                    | None                     | 401 KAR 63:002                      |
| M03                  | Fluid Filling Operations, including windshield cleaner, brake fluid, antifreeze, steering fluid, transmission fluid, refrigerants, and fuel. | March 2014                    | None                     |                                     |
| M04                  | Testing Operations, including brake tester, drum tester, final line, off-line vehicle inspection/testing, tester waiter, toe tester.         | March 2014                    | None                     |                                     |
| M05                  | Miscellaneous Process Cleaners   | March 2014                    | None                     | 401 KAR 63:002                      |
| M06                  | Miscellaneous Adhesive Applications  | March 2014                    | None                     | 401 KAR 63:002                      |



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>EMISSION UNIT</b> | <b>OPERATION</b>                                  | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|---|-------------------------------|--------------------------|-------------------------------------|
| M07                  | Non-Process Cleaning Activities                   | March 2014                    | None                     | 401 KAR 59:185<br>401 KAR 63:002    |
| M08                  | Process Lubrication, including hose installation. | March 2014                    | None                     |                                     |
| M09                  | Raw Material Supply / Storage                     | March 2014                    | None                     | 401 KAR 63:002                      |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**PRODUCTION CONTROL OPERATIONS** include the following processes:

| <b>EMISSION UNIT</b> | <b>OPERATION</b>   | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|--|-------------------------------|--------------------------|-------------------------------------|
| K01                  | Dock Unloading Areas (Insignificant Activities List)       | July 17, 1986                 | None                     |                                     |
| K02                  | Parts Conveyance (Insignificant Activities List)           | July 17, 1986                 | None                     |                                     |
| K03                  | Shipping Preparation (Insignificant Activities List)       | July 17, 1986                 | None                     |                                     |
| K04                  | Fork Truck Repair Painting (Insignificant Activities List) | July 17, 1986                 | None                     |                                     |
| K05                  | Cross Dock (Insignificant Activities List)                 | Feb 2004                      | None                     |                                     |
| K06                  | Battery Charging Stations (Insignificant Activities List)  | July 17, 1986                 | None                     |                                     |
| K07                  | Non-Process Cleaning Activities                            | July 17, 1986                 | None                     | 401 KAR 59:185                      |

**QUALITY CONTROL OPERATIONS** include the following processes:

| <b>EMISSION UNIT</b> | <b>OPERATION</b>                                      | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|---|-------------------------------|--------------------------|-------------------------------------|
| J01                  | Audit Lab (Insignificant Activities List)             | July 17, 1986                 | None                     |                                     |
| J02                  | Raw Material Test Lab (Insignificant Activities List) | July 17, 1986                 | None                     |                                     |
| J03                  | Test Track Operations (Insignificant Activities List) | July 17, 1986                 | None                     |                                     |
| J04                  | Non-Process Cleaning Activities                       | July 17, 1986                 | None                     | 401 KAR 59:185                      |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**LOGISTICS OPERATIONS** include the following processes:

| <b>EMISSION UNIT</b> | <b>OPERATION</b>                                       | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b> | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|--|-------------------------------|--------------------------|-------------------------------------|
| L01                  | Repair Painting  | July 17, 1986                 | None                     | 401 KAR 63:002                      |
| L02                  | Accessory Installation (Insignificant Activities List) | July 17, 1986                 | None                     |                                     |
| L03                  | Shipping Preparation (Insignificant Activities List)   | July 17, 1986                 | None                     |                                     |
| L04                  | Non-Process Cleaning Activities                        | July 17, 1986                 | None                     | 401 KAR 59:185<br>401 KAR 63:002    |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****APPLICABLE REGULATIONS:**

**401 KAR 51:017**, *Prevention of significant deterioration of air quality*

**401 KAR 59:010**, *New Process Operations*

**401 KAR 59:185**, *New solvent metal cleaning equipment*

**401 KAR 63:002 Section 2(4)(ooo), 40 C.F.R. 63.3080 to 63.3176, Tables 1 through 4, and Appendix A (Subpart IIII)**, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks* (Refer to Section B Group Requirements)

**1. Operating Limitations:**

- a. The usage rates of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in Section B.2. Wherever practicable, the permittee shall utilize work practices to minimize emissions from non-process cleaning activities. Refer to Section B Group Requirements for requirements specific to 40 CFR 63 Subpart IIII.

**Specific Operating Limitations for Cold Cleaner in Emission Unit A06, B06, M07, K07, J04, L04:**

- b. The permittee shall comply with control equipment and operating requirements specified in 401 KAR 59:185, Section 4 (1) & (2). Refer to Section B Group Requirements.

**2. Emission Limitations:**

- a. **401 KAR 59:010, Section 3 (1):** The opacity of visible emissions from each stack shall not equal or exceed 20 percent.

**Compliance Demonstration Method:**

Compliance with the opacity standard is assumed given the processes and activities associated with Assembly #1, Assembly #2, Production Control, Quality Control, Toyota Logistics and Assembly #3.

- b. **401 KAR 59:010, Section 3 (2):** Emission of particulate matter from a control device or stack of any affected facility up to a process rate of 1000 lbs/hr shall not exceed **2.34** lbs/hr.

**Compliance Demonstration Method:**

The total process weight, "P" as defined in 401 KAR 59:010 must reflect a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period. This period shall not exceed 24 hours. In the case where there are no periodic monitoring requirements associated with the affected facility, continuous compliance shall be assumed as long as there are no process or operational changes. The determination of the emission rate "E" in pounds per hour for compliance with 401 KAR 59:010 may also be used to demonstrate compliance with 401 KAR 51:017, except that the period allowed for the determination of "P" shall be one month.

The source is considered to be in compliance when the emission units under Production Control, Quality Control, Toyota Logistics and Assembly #3 are properly operated and maintained.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. **401 KAR 51:017:** Emissions of VOC and PM shall not exceed the following, as calculated on a monthly basis:

| EMISSION UNIT | OPERATION                       | VOC LIMIT<br>(lb/job) | PM LIMIT<br>(lb/hr) |
|---------------|---------------------------------|-----------------------|---------------------|
| A02           | Misc Wax Coating                | 0.28                  | N/A                 |
| A03           | Glass Installation              | 0.11                  | N/A                 |
| A06           | Non-Process Cleaning Activities | 0.081                 | N/A                 |
| A09           | Testing Operations              | N/A                   | 0.85                |
| A13           | General Exhaust                 | N/A                   | 1.05                |
| B02           | Miscellaneous Wax Coating       | 0.19                  | N/A                 |
| B03           | Glass Installation              | 0.11                  | N/A                 |
| B06           | Non-Process Cleaning Activities | 0.081                 | N/A                 |
| B09           | Testing Operations              | N/A                   | 0.79                |
| B13           | General Exhaust                 | N/A                   | 1.08                |
| M02           | Glass Installation              | 0.17                  | N/A                 |
| M05           | Miscellaneous Process Cleaners  | 0.316                 | N/A                 |

### Compliance Demonstration Method:

$$VOC\ Value = \frac{\sum U_i * V_i * E_i * (1 - C_i * F_i)}{P}$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency,

P = Production rate (number of vehicles produced)

PM Value = Measurement, when prescribed by periodic monitoring requirements table.

Otherwise PM shall be calculated as follows:

$$PM\ Value = \sum \frac{P}{P_m} * E_i, \text{ or equivalent methods approved by the Division}$$

P = Average shop production throughput,

P<sub>m</sub> = Maximum vehicle production rate

E<sub>i</sub> = PM Emission Factor (controlled) for each stack “i”.

See Compliance Demonstration Method for 401 KAR 59:010, in this Section.

- d. **401 KAR 51:017:** Emissions of VOC shall not exceed the following, based on a 12-month rolling total:

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

| EMISSION UNIT      | VOC LIMIT<br>(tons/year) |
|--------------------|--------------------------|
| Assembly #1        | 92.4                     |
| Assembly #2        | 61.3                     |
| Production Control | 5                        |
| Quality Control    | 5                        |
| Toyota Logistics   | 5                        |
| Assembly #3        | 23                       |

### Compliance Demonstration Method:

$$VOC\ Value = \sum U_i * V_i * E_i * (1 - C_i * F_i)$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency.

- e. **401 KAR 51:017:** PM emissions from Assembly #1 Operations and Assembly #2 Operations shall not exceed 5.26 tons and 8.76 tons per year respectively, based on a 12-month rolling total.

### Compliance Demonstration Method:

$$PM\ Value = \sum P * E_i$$

P = Average shop production throughput

E<sub>i</sub> = PM Emission Factor (controlled) for “i”,

See Compliance Demonstration Method for 401 KAR 59:010, in this Section.

- f. **40 CFR 63 Subpart IIII, Section 63.3091 - Emission Limits for Existing Sources**

| EMISSION UNITS     | NESHAP AFFECTED OPERATIONS                              | EMISSION LIMIT   |
|--------------------|---|--|
| A02, B02, M01      | Miscellaneous Wax Coating Operations                    | Refer to Section B Group Requirements for Group Emission Limits. |
| A03, B03, M02      | Glass Bonding Primer                                    |  |
| A03, B03, M02      | Glass Bonding Adhesive                                  |  |
| A04, A14, B04, M06 | Adhesives and sealers other than glass bonding adhesive |  |
| A06, B06, M07      | Non -Process Cleaning*                                  |  |
| A07, B07, M05      | Process Cleaning*                                       |  |
| A10, B10           | Final Repair  |  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

|     |                                 |  |
|-----|---------------------------------|--|
| L01 | Final Repair                    | Refer to Section B Group Requirements for Group Emission Limits. |
| L04 | Non-Process Cleaning Activities |  |

\* Applicable only to organic-HAP-containing cleaning materials used in coating operations for which emission limits are established under 40 CFR 63 Section 63.3901(a) through (d).

**Compliance Demonstration Method:**

Refer to Section B Group Requirements.

g. Synthetic Minor Limit for PM<sub>2.5</sub>, NO<sub>x</sub> and CO<sub>2e</sub> emissions. See Section D.4.

**3. Testing Requirements:**

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1].

**4. Specific Monitoring Requirements:**

The permittee shall monitor raw material usages as necessary to demonstrate compliance with all requirements of this permit. Refer to Section B Group Requirements for requirements specific to Subpart III.

**5. Specific Recordkeeping Requirements:**

a. The permittee shall keep calendar month records of usage of all applicable raw materials. Following the end of each month, Volatile Organic Compounds (VOC) emissions and Particulate Matter (PM) emissions shall be calculated on a twelve-month rolling total basis and recorded. Following the end of each month, pounds per job limits for VOC and pounds per hour limits for PM shall be calculated and recorded. These records shall represent the most recent year and shall show compliance with VOC and PM emission limitations listed in this permit. These records shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality. Refer to Section B Group Requirements for requirements specific to Subpart III.

b. The permittee shall maintain monthly records of the data specified in subsection 2. **Emission Limitations** required to calculate the emission rate of VOC in terms of pounds per job.

**6. Specific Reporting Requirements:**

The permittee shall submit summary monitoring reports every 6 months containing monitoring information listed in Sections B.4, B.5, D.4 and D.6 of this permit. (See Section F.5 for specific reporting dates.)

**7. Specific Control Equipment Operating Conditions:**

Refer to Section E

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE  
REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**BODY OPERATIONS**



## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Description and Applicable Regulations:

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table, unless otherwise stated.

**BODY OPERATIONS, 100/100A BUILDINGS and 400 BUILDING,** Operations include the following processes:

| EMISSION UNIT | OPERATION  | CONSTRUCTION COMMENCED  | CONTROL EQUIPMENT             | OTHER APPLICABLE REGULATIONS     |
|---------------|--|---|-------------------------------|----------------------------------|
| C01           | Die Construction (Insignificant Activities List)   | March 22, 1991  | None                          |                                  |
| C02           | Stamping Press Operations (Line 1, 2 & 3)  | March 22, 1991<br>January 2016<br>Modified December 2024                          | None                          |                                  |
| C03           | Welding Operations, including Laser (stamping), Arc, and Resistance Welding                                | March 22, 1991<br>January 2016<br>July 2019<br>Modified November 2024             | Dust Collector<br>DC03 for PM |                                  |
| C04           | Brazing, Grinding and Finishing Operations   | March 22, 1991  | None                          |                                  |
| C06           | Sealer and Adhesive Application, including Precure Ovens (Line 1 & 2)                                      | July 17, 1986<br>January 2016<br>Modified November 2022<br>Modified November 2024 | None                          | 401 KAR 63:002                   |
| C08           | Small Parts Phosphate System, including De-greasing Tank, Rinse Tanks, and Phosphate Dip Tank (Line 1 & 3) | April 1, 2022   | None                          |                                  |
| C09           | Small Parts Electro deposition System, Including Rinse Tanks, Dip Tank, and Oven (Line 1, 2 & 3)           | April 1, 2022   | Oven - RTO<br>WT01            | 401 KAR 60:005<br>401 KAR 63:002 |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>EMISSION UNIT</b> | <b>OPERATION</b>   | <b>CONSTRUCTION COMMENCED</b>  | <b>CONTROL EQUIPMENT</b>          | <b>OTHER APPLICABLE REGULATIONS</b>         |
|----------------------|--|--|-----------------------------------|---|
| C10                  | Fuel Tank Antichip Coating (Line 2), including Booths & Ovens  | March 22, 1991<br>December 26, 2016<br>October 2018                            | Booths – Filters<br>FTAC02 for PM | 401 KAR 63:002                              |
| C11                  | Process Lubrication (Insignificant Activities List)  | March 22, 1991   | None                              |   |
| C12                  | Non-Process Cleaning Activities  | July 17, 1986  | None                              | 401 KAR 59:185<br>401 KAR 63:002            |
| C13                  | Fuel Tank Cleaning (Insignificant Activities List)   | July 17, 1986  | None                              |   |
| C14                  | General Exhaust  | March 22, 1991<br>Modified November 2024                                       | None                              |   |
| C15                  | Welding Operations, including Resistance and Arc Welding   | March 2014   | None                              |   |
| C16                  | Bodyweld Sealers and Adhesives (Line 3)  | March 2014   | None                              | 401 KAR 63:002                              |
| C17                  | Welding Operations, including Laser and MIG Welding.<br>Each MIG welding equipment equipped with integral dust collector | January 2016<br>April 2019<br>Modified February 2022<br>Modified November 2024 | Integral dust collectors          |   |
| C18                  | Battery Case Welding   | December 2024  | None                              | *401 KAR 51:017<br>does not apply to<br>C18 |

## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **APPLICABLE REGULATIONS:**

**401 KAR 51:017**, *Prevention of significant deterioration of air quality*

**401 KAR 59:010**, *New Process Operations*

**401 KAR 59:185**, *New solvent metal cleaning equipment*

**401 KAR 60:005 Section 2(2)(tt) 40 C.F.R. 60.390 to 60.398 (Subpart MM)**, *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations*, (Refer to Section B Group Requirements).

**401 KAR 63:002 Section 2(4)(ooo), 40 C.F.R. 63.3080 to 63.3176, Tables 1 through 4, and Appendix A (Subpart IIII)**, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks* (Refer to Section B Group Requirements)

### **1. Operating Limitations:**

- a. The usage rates of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in Section B.2. Wherever practicable, the permittee shall utilize work practices to minimize emissions from non-process cleaning activities. Refer to Section B Group Requirements for requirements specific to 40 CFR 63 Subpart IIII.

#### **Specific Operating Limitations for Emission Unit C03:**

- b. The maximum weld wire usage from all arc welding operations in the Body Operations Shop shall not exceed 463.6 pounds per hour based on monthly usage data.

#### **Compliance Demonstration Method:**

The permittee shall perform semiannual primary production welder consumption audits to determine the weld wire percentage control ratio.

- c. Good operating practices shall be followed for each arc welding operation in the Body Operations shop.

**Compliance Demonstration Method:** Good operating practices shall include the following:

- (1) Weld nozzle cleaning, to allow appropriate flow characteristics of shielding gas, shall be performed at least daily per production week.
- (2) Visual inspections shall be performed at least once per shift on the majority of arc welds on the individual parts that make up a vehicle.
- (3) Weld wire confirmation shall be performed for each weld wire drum change.
- (4) Part jigs shall be cleaned to remove slag build-up as required to ensure proper part fit.

- d. **Specific Operating Limitations for Thermal Oxidizers:**

- (1) The average combustion chamber temperature in any 3-hour period shall not fall more than 28°C (50°F) below the combustion temperature established during the most recent performance test, which demonstrated compliance.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (2) The permittee shall use the data collected during the performance test to calculate and record the average combustion temperature. This average combustion temperature is the minimum set point for the thermal oxidizer. The minimum-operating limit for thermal oxidizers is 28°C (50°F) below the minimum set point temperature.

**Compliance Demonstration Method:**

The permittee must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. Compliance shall be demonstrated by monitoring and recording the combustion temperature as required in the Periodic Monitoring Requirements table, averaged over 3 hours.

e. **Specific Operating Limitations for Cold Cleaner in Emission Unit C12:**

The permittee shall comply with control equipment and operating requirements specified in 401 KAR 59:185, Section 4 (1) & (2). Refer to Section B Group Requirements.

2. **Emission Limitations:**

- a. **401 KAR 59:010, Section 3 (1):** The opacity of visible emissions from each stack shall not equal or exceed 20 percent.

**Compliance Demonstration Method:**

- (1) See Specific Monitoring Requirements, B.4.  
(2) See Periodic Monitoring Requirements table.

- b. **401 KAR 59:010, Section 3 (2):** For emissions from a control device or stack no person shall cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of 2.34 pounds per hour.

**Compliance Demonstration Method:**

- (1) For affected facilities that use transfer efficiency in the determination of PM/PM<sub>10</sub> emissions the permittee shall:
- Use the transfer efficiency value specified in 40 CFR 60.393 for the application method used; or
  - Use a transfer efficiency value determined through testing approved by the Division.
- Previous transfer efficiency tests may be accepted if the following conditions are met:
- The previous test must have been conducted using methods and conditions approved by the Division.
  - Either no process or equipment changes have been made since the previous test was performed, or the owner or operator must be able to demonstrate that the results of the performance test reliably demonstrate compliance despite process or equipment changes.
  - Either the required operating parameters were established in the previous test, or sufficient data were collected in the previous test to establish the operating parameters.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (2) The total process weight, “P” as defined in 401 KAR 59:010 must reflect a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period. This period shall not exceed 24 hours. In the case where there are no periodic monitoring requirements associated with the affected facility, continuous compliance shall be assumed as long as there are no process or operational changes. The determination of the emission rate “E” in pounds per hour for compliance with 401 KAR 59:010 may also be used to demonstrate compliance with 401 KAR 51:017, except that the period allowed for the determination of “P” shall be one month.
- (3) For affected facilities with periodic monitoring requirements for particulate emissions the source shall demonstrate continuous compliance by adhering to the periodic monitoring requirements table. The source must maintain a record of deviations from “standard ranges” in the periodic monitoring requirements table and determine the particulate emissions from the deviation. The duration of the deviation shall be the period between when the “out of standard condition” was noted and when it is corrected. If an engineering evaluation utilizing control efficiency is used to determine particulate emissions for the affected facility, the allowed control efficiency shall be zero during the deviation period unless testing is conducted to prove otherwise.
- c. **401 KAR 51:017:** Emissions of VOC and PM shall not exceed the following, as calculated on a monthly average basis:

| EMISSION UNIT | OPERATION  | VOC LIMIT<br>(lb/job) | PM LIMIT<br>(lb/hr) |
|---------------|--|-----------------------|---------------------|
| C02           | Stamping Operations (Line 1, 2 & 3)                          | 0.518                 | N/A                 |
| C03/C14       | Welding Activities (all affected facilities)<br>Line 1 & 2   | N/A<br>N/A            | 14.48               |
| C04           | Brazing and Grinding (all affected facilities)<br>Line 1 & 2 | N/A                   | 0.28                |
| C06           | Adhesive/Sealer Application<br>Line 1<br>Line 2              | 0.120<br>0.306        | N/A                 |
| C08           | Small Parts Phosphate (Line 1 & 3)                           | N/A                   | 0.38                |
| C09           | Small Parts Electro deposition<br>(Line 1, 2 & 3)            | 0.041                 | 0.115               |
| C10           | Fuel Tank Anti-chip Coating<br>Line 2                        | 0.279                 | 0.288               |
| C12           | Non-Process Cleaning Activities                              | 0.270                 | N/A                 |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Compliance Demonstration Method:

$$VOC\ Value = \frac{\sum U_i * V_i * E_i * (1 - C_i * F_i)}{P}$$

$U_i$  = Usage of material “i”,  
 $V_i$  = Volatile organic compound (VOC) content,  
 $E_i$  = VOC Emission Factor,  
 $F_i$  = Control efficiency,  
 $C_i$  = Collection efficiency,  
 $P$  = Production rate (number of vehicles produced)

PM Value = Measurement, when prescribed by periodic monitoring requirements table. Otherwise PM shall be calculated as follows:

$$PM\ Value = \sum \frac{P}{P_m} * E_i, \text{ or equivalent methods approved by the Division}$$

$P$  = Average shop production throughput,  
 $P_m$  = Maximum vehicle production rate  
 $E_i$  = PM Emission Factor (controlled) for each stack “i”.  
 See Compliance Demonstration method for 401 KAR 59:010, in this Section.

- d. **401 KAR 51:017:** VOC emissions from Line 2 Body Operations shall not exceed 176.1 tons per year, and VOC emissions shall not exceed 399.4 tons per year from the entire Body Operations shop, based on a 12-month rolling total.

### Compliance Demonstration Method:

$$VOC\ Value = \sum U_i * V_i * E_i * (1 - C_i * F_i)$$

$U_i$  = Usage of material “i”,  
 $V_i$  = Volatile organic compound (VOC) content,  
 $E_i$  = VOC Emission Factor,  
 $F_i$  = Control efficiency,  
 $C_i$  = Collection efficiency.

- e. **401 KAR 51:017:** PM emissions from Line 1 and Line 2 Body Operations combined (Emission Unit C01 through C14) shall not exceed 39.6 tons per year, based on a 12-month rolling total.

### Compliance Demonstration Method:

- (1) Calculated from the following equation, except where testing specified  
 (See item 2)

$$PM\ Value = \sum P * E_i$$

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

P = Average shop production throughput

E<sub>i</sub> = PM Emission Factor (controlled) for “i”, See Compliance Demonstration

Method for 401 KAR 59:010, in this Section.

(2) Testing, see Periodic Monitoring Requirements table.

**f. 40 CFR 60 Subpart MM - 60.392:**

On and after the date on which the initial performance test required by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of 40 CFR 60 Subpart MM shall discharge or cause the discharge into the atmosphere from any affected facility VOC emissions in excess of:

| NSPS CATEGORY<br>(Affected Facilities) | EMISSION LIMIT<br>(kg VOC per liter solid applied) | COATINGS INCLUDED IN GROUP |
|--|--|----------------------------|
| Primecoat Operations                   | 0.17   | C09- Electro deposition    |

**Compliance Demonstration Method:**

See Section B Group Requirements

**g. 40 CFR 63 Subpart IIII, Section 63.3091 - Emission Limits for Existing Sources**

| EMISSION UNITS | NESHAP AFFECTED OPERATIONS  | EMISSION LIMIT   |
|----------------|---|--|
| C06            | Sealer and Adhesive Application   | Refer to Section B Group Requirements for Group Emission Limits. |
| C09            | Small Parts Electro deposition System, Including Rinse Tanks, Dip Tank, and Oven (Line 1) |  |
| C10            | Fuel Tank Antichip Coating (Line 1 & 2),  |  |
| C12            | Non-Process Cleaning*   |  |
| C16            | Bodyweld Sealers and Adhesives  |  |

\* Applicable only to organic-HAP-containing cleaning materials used in coating operations for which emission limits are established under 40 CFR 63 Section 63.3901(a) through (d).

**Compliance Demonstration Method:**

Refer to Section B Group Requirements.

h. Synthetic Minor Limit for PM<sub>2.5</sub> and CO<sub>2e</sub> emissions from **Emission Unit C15**. See Section D 4.

**3. Testing Requirements:**

a. Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1].

b. See Section B Group Requirements.

c. The permittee shall perform periodic stack tests for Emission Unit C09 according to the standards and schedule specified in the Periodic Monitoring Requirements table.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

- a. The permittee shall conform to the monitoring requirements, as prescribed in its Periodic Monitoring Requirements table.
- b. The permittee shall monitor raw material usages as necessary to demonstrate compliance with all requirements of this permit. Refer to Section B Group Requirements for requirements specific to 40 CFR 60 Subpart MM and 40 CFR 63 Subpart IIII.
- c. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume) [401 KAR 59:010].
- d. Stacks that are subject to specific periodic visible emissions monitoring are identified in the Periodic Monitoring Requirements table and are subject to the conditions specified below:
  - (1) The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack on a weekly basis. See Section B 4. c.
  - (2) If no visible emissions are detected for a period of 1 month then the monitoring frequency shall be reduced from weekly to monthly.
  - (3) If visible emissions are detected during the monthly check, then the weekly check shall be re-instated until there are no visible emissions detected for 1 month period.
  - (4) If the method of operation changes for processes emitting to the atmosphere, then the requirement to perform weekly qualitative observations will be reinstated.

**5. Specific Recordkeeping Requirements:**

- a. The permittee shall conform to the record keeping requirements, as prescribed in its Periodic Monitoring Requirements table. All periodic monitoring records shall be maintained onsite for a period of not less than 5 years.
- b. The permittee shall keep calendar month records of usage of all applicable raw materials. Following the end of each month, Volatile Organic Compounds (VOC) emissions and Particulate Matter (PM) emissions shall be calculated on a twelve-month rolling total basis and recorded. Following the end of each month, pounds per job limits for VOC and pounds per hour limits for PM shall be calculated and recorded. These records shall represent the most recent year and shall show compliance with VOC and PM emission limitations listed in this permit. These records shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.
- c. The permittee shall maintain a log of the visual observations noting date, time, initials of observers, and records of corrective actions taken as a result of visible emissions from a stack and records of any Reference Method 9 readings performed.



## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- d. Records documenting the results of any required inspection and repair, as a result of a recorded opacity over 20% shall be maintained.
- e. The permittee shall maintain monthly records of the data specified in Emission Limitations B.2. required to calculate the emission rate of VOC in terms of pounds per job.

### **Thermal Oxidizer Specific Recordkeeping Requirements:**

- f. The permittee shall maintain records of the following information for the thermal oxidizer:
  - (1) All 3-hour periods (during coating operations) during which the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer determined during the most recent performance test which demonstrated compliance. Each occurrence shall be considered a deviation from permit requirements. See Section F.6.
- g. During all periods of operation of the thermal oxidizer in which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test which demonstrated compliance, or other malfunction of the thermal oxidizer, a daily log of the following information shall be kept:
  - (1) Whether any air emissions were visible from the facilities associated with the thermal oxidizer.
  - (2) Whether visible emissions were normal for the process.
  - (3) The cause of the visible emissions.
  - (4) Corrective action(s) taken shall be recorded.

### **6. Specific Reporting Requirements:**

The permittee shall submit summary monitoring reports every 6 months containing monitoring information listed in Sections B.4, B.5, D.4 and D.6 of this permit. (See Section F.5 for specific reporting dates.) The report shall list any “out of standard” conditions or periodic monitoring requirements, as listed in the Periodic Monitoring Requirements table below. If no “out of standard” conditions occurred, the permittee shall submit a negative report.

### **7. Specific Control Equipment Operating Conditions:**

The permittee shall install, maintain, and operate its control equipment in accordance with manufacturers’ recommendations and good engineering practice.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### BODY OPERATIONS - PERIODIC MONITORING REQUIREMENTS

| Emission Unit | Operation   | Equipment Monitored            | Characteristic Monitored | Parameter Monitored            | Method or Device                   | Monitoring Frequency | Recording Frequency  | Calibration Frequency | Standard Range  |
|---------------|---|--------------------------------|--------------------------|--------------------------------|------------------------------------|----------------------|----------------------|-----------------------|---|
| C03           | Welding Operations (ALL)                          | Primary Production Arc Welders | Welding Emissions        | Weld Wire consumption          | Weld wire percentage control ratio | Semiannual           | Semiannual           | N/A                   | N/A   |
| C03           | Welding Operations – Arc Welding Robots (Primary) | Dust Collector (DC-03)         | PM Removal Efficiency    | Pressure Drop                  | Gauge                              | Continuous           | Monthly              | Annual                | 0.2 – 7.0 inches of water                             |
| C09           | Electro deposition Prime #1                       | Oven                           | Electro coat Emissions   | Opacity                        | Visual Inspection                  | Refer to Section B.4 | Refer to Section B.4 | N/A                   | < 20 Percent  |
| C09           | Small Parts Electro deposition – Oven             | Thermal Oxidizer (WT01)        | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                       | Continuous **        | 15 Minutes           | Annual                | Not More Than 28°C Below Combustion Temperature Limit |
| C09           | Small Parts Electro deposition - Oven             | Thermal Oxidizer (WT01)        | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A)        | Every 5 Years*       | Every 5 Years*       | Each Test             | DRE ≥ 80%   |
| C10           | Fuel Tank Antichip Coating (Line 2)               | Booth Exhaust Filters FTAC-02  | PM Removal Efficiency    | Filters in Place               | Visual Inspection                  | Weekly               | Weekly               | N/A                   | No Visible Gaps                                       |
| C15           | Welding Operations – Arc Welding                  | Welders                        | Welding Emissions        | Weld Wire consumption          | N/A                                | Monthly              | Monthly              | N/A                   | Synthetic Minor Limit. Section D.4                    |

\* No more than 5 years from the last performance test.

\*\* “Continuous” means at least one (1) reading every 15 minutes

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE  
REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**FACILITIES CONTROL**

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Description and Applicable Regulations:

401 KAR 51:017 shall apply to all affected facilities listed in the following table.

**FACILITIES CONTROL,** Operations include the following processes:

| EMISSION UNIT | OPERATION  | CONSTRUCTION COMMENCED   | CONTROL EQUIPMENT  | OTHER APPLICABLE REGULATIONS              |
|---------------|--|--|--|---|
| D02           | Wastewater Pretreatment Facility (Insignificant Activities List)   | March 22, 1991   | None   | 401 KAR 59:010                            |
| D03A          | Indirect / Direct Bldg Heat Combustion Units (Plant 2) > 1 MMBtu/hr (Natural Gas Only) (Total Capacity 622.4 MMBtu/hr)   | 1991 - 2015  | None   | 401 KAR 59:015                            |
| D03B          | Indirect / Direct Shop Process Combustion Units (Plant 2) > 1 MMBtu/hr (Natural Gas Only ) (Total Capacity = 592.81 MMBtu/hr)  | 1991 - 2021  | None   | 401 KAR 59:015<br>40 CFR 63 Subpart DDDDD |
| D04A          | Indirect / Direct Bldg Heat Combustion Units (Plant 1) > 1 MMBtu/hr (Natural Gas Only) (Total Capacity 350.4 MMBtu/hr)   | 1986 – 2015  | None   | 401 KAR 59:015                            |
| D04B          | Indirect / Direct Shop Process Combustion Units (Plant 1) > 1 MMBtu/hr (Natural Gas Only ) Total Capacity = 748.38 MMBtu/hr – including existing Plant 1 process units<br>Total Capacity = 476.58 MMBtu/hr – after remove existing Plant 1 process units | 1986 – 2015  | None   | 401 KAR 59:015<br>40 CFR 63 Subpart DDDDD |
| D05           | Cooling Tower Facilities, including primary towers and individual building towers (Insignificant Activities List)  | March 22, 1991   | None   | 401 KAR 59:010                            |
| D06           | Raw Material Storage / Supply  | March 22, 1991 for D06a-f, and g-j<br>July 2023 for D06ff<br>Construction projected June 2025 for D06k | Gasoline and Virgin Purge–<br>Conservation Vents Gasoline Tanks - Submerged Fill | 401 KAR 59:050<br>401 KAR 63:020          |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION  | CONSTRUCTION COMMENCED   | CONTROL EQUIPMENT                                    | OTHER APPLICABLE REGULATIONS              |
|---------------|--|--|--|---|
| D07           | Backup Generators utilizing #2 Fuel Oil<br>D07(01, 02) Two (2) Backup Generators (17.45 MMBtu/hr, each)<br>D07(03) One (1) Backup Generator (34.74 MMBtu/hr)<br>D07(04) One (1) Backup Generator (2.26 MMBtu/hr, Mobile Unit)<br>D07(05, 06) Two (2) Backup Generators (8.48 MMBtu/hr, each)<br>D07(07) One (1) Backup Generator (17.45 MMBtu/hr, Mobile Unit)<br>D07(08) Two (2) Backup Fire Pumps (269 HP, each)<br>D07(09,10) Two Backup Generators (35 HP, each) | August 27, 1992<br>July 17, 1986<br>1996<br>2002<br>2003<br>1987<br>2004 | None<br>None<br>None<br>None<br>None<br>None<br>None | 40 CFR 63 Subpart ZZZZ                    |
| D08           | Miscellaneous Combustion Sources, including Indirect Heat Exchangers $\leq 1$ MMBtu/hr (Insignificant Activities List)   | 1986 - 2022  | None   |   |
| D09           | Non-Process Cleaning   | July 17, 1986  | None   | 401 KAR 59:185                            |
| D11A          | Indirect / Direct Bldg Heat Combustion Units (Line 3) > 1 MMBtu/hr (Natural Gas Only) (Total Capacity 49.99 MMBtu/hr)  | March 2014   | None   | 401 KAR 59:015                            |
| D11B          | Indirect / Direct Shop Process Combustion Units (Line 3) > 1 MMBtu/hr (Natural Gas Only) (Total Capacity = 184.3 MMBtu/hr)   | March 2014   | None   | 401 KAR 59:015<br>40 CFR 63 Subpart DDDDD |

## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **APPLICABLE REGULATIONS:**

**401 KAR 51:017**, *Prevention of significant deterioration of air quality*

**401 KAR 59:010**, *New Process Operations*

**401 KAR 59:015**, *New Indirect Heat Exchangers*

**401 KAR 59:050**, *New Storage Vessels for Petroleum Liquids*

**401 KAR 59:185**, *New solvent metal cleaning equipment*

**401 KAR 63:002 Section 2(4)(eeee) 40 C.F.R. 63.6580 to 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ)**, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*,

**401 KAR 63:002 Section 2(4) (iii) 40 C.F.R. 63.7480 to 63.7575, Tables 1 through 13 (Subpart DDDDD)**, *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

### **STATE-ORIGIN REQUIREMENTS:**

**401 KAR 63:020**, *Potentially hazardous matter or toxic substances*

#### **1. Operating Limitations:**

- a. The affected facilities shall be operated so as not to exceed the emission limitations in Section B.2.

##### **Specific Operating Limitations for Emission Unit D06:**

- b. The gasoline storage tanks, T5311, T5312, T800-B1, T800-3 and T800-4, shall be equipped with submerged fill pipes, and a vapor balance system for gasoline truck unloading. Tank trucks shall not be unloaded unless they are properly connected to the vapor balance system [401 KAR 59:050, Section 3 (2)].

##### **Specific Operating Limitations for Cold Cleaner in Emission Unit D09:**

- c. The permittee shall comply with control equipment and operating requirements specified in 401 KAR 59:185, Section 4 (1) & (2). Refer to Section B Group Requirements.

##### **Specific Operating Limitations for Emission Unit D07:**

###### **40 CFR 63 Subpart ZZZZ:**

- d. For emergency stationary CI RICE [40 CFR 63.6602 and Table 2c],:
  - (1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - (2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
  - (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (4) Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply [40 CFR 63.6625 (h)].
- (5) The source has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement.

Work or Management Practices [40 CFR 63.6625 (e) and Table 6 (9)]:

- e. The permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or maintenance plan developed by permittee which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- f. The permittee shall install a non-resettable hour meter on the Emission Unit D07 engines [40 CFR 63.6625 (f)].
- g. The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this 40 CFR 63.6640. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of 40 CFR 63.6640, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (4) of 40 CFR 63.6640, the engine will not be considered an emergency engine under 40 CFR 63 subpart ZZZZ and must meet all requirements for non-emergency engines [40 CFR 63.6640 (f)].
  - (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
  - (2) The permittee may operate their emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of 40 CFR 63.6640 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of 40 CFR 63.6640 counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2).
  - (3) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (4) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of 40 CFR 63.6640.
- h. Line 3 Operations (Emission Units D11A and D11B) natural gas usage shall not exceed 787.82 million cubic feet of per year, based on a 12 month rolling total, to preclude applicability of 401 KAR 51:017 for PM<sub>2.5</sub>, NO<sub>x</sub> and CO<sub>2e</sub> pollutants.
- i. Paint Line #1 Rebuilt project natural gas usage shall not exceed 1485.58 million cubic feet of per year, based on a 12 month rolling total, to preclude applicability of 401 KAR 51:017 for PM<sub>10</sub>, NO<sub>x</sub>, CO and CO<sub>2e</sub> pollutants.

### Specific Operating Limitations for Boilers and Process Heaters in Emission Units, D03B, D04B, and D11B:

#### 40 CFR 63 Subpart DDDDD:

- j. Pursuant to 40 CFR 63.7500 and Table 3 to Subpart DDDDD, the permittee shall comply with the following applicable work practice standards:

#### 40 CFR 63 Subpart DDDDD

| If boiler or process heater is . . .  | The permittee shall meet the following . . .  |
|---|---|
| 1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater  | Conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR 63.7540. |
| 2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid | Conduct a tune-up of the boiler or process heater biennially as specified in 40 CFR 63.7540.    |



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

|  |  |
|--|--|
| 3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater | Conduct a tune-up of the boiler or process heater annually as specified in 40 CFR 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under 40 CFR 63 Subpart DDDDD. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.  |
| 4. An existing boiler or process heater located at a major source facility, not including limited use units  | <p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR 63.7575:</p> <ul style="list-style-type: none"><li>a. A visual inspection of the boiler or process heater system.</li><li>b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.</li><li>c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.</li><li>d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.</li><li>e. A review of the facility's energy management practices and provide recommendations for improvements</li></ul> |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

|  |   |
|--|---|
|  | <p>consistent with the definition of energy management practices, if identified.</p> <p>f. A list of cost-effective energy conservation measures that are within the facility's control.</p> <p>g. A list of the energy savings potential of the energy conservation measures identified.</p> <p>h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</p> |
|--|---|

### 2. Emission Limitations:

- a. **401 KAR 51:017 and 401 KAR 59:015:** Emissions of PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC from Facilities Control Operations shall not exceed:

| <i>401 KAR 51:017, D11A and D11B, Indirect / Direct Bldg Heat and Shop Process Combustion Units (Line 3) &gt; 1 MMBtu/hr (Natural Gas Only) (Total Capacity 234.29 MMBtu/hr)</i> |  |
|--|--|
| Pollutants   | Natural Gas Allowable Emission Rates (lb/MMBtu heat Input) |
| VOC  | 0.0054   |
| <i>401 KAR 51:017, D03A, Indirect / Direct Bldg Heat Combustion Units (Plant 2) &gt; 1 MMBtu/hr (Natural Gas Only) (Total Capacity 622.4 MMBtu/hr)</i>                           |  |
| Pollutants   | Allowable Emission Rate (Tons pollutant/year)              |
| PM   | 10.6   |
| SO <sub>2</sub>  | 0.8  |
| NO <sub>x</sub>  | 139.3  |
| CO   | 117.0  |
| VOC  | 7.7  |

| <i>401 KAR 59:015, D03A, D03B, D04A, D04B, D11A, D11B Indirect Heat Exchangers &gt; 1 MM Btu/hr</i> |                                    |
|---|------------------------------------|
| Pollutants  | Allowable Emission Rate (lb/MMBtu) |
| PM  | 0.1                                |
| SO <sub>x</sub>   | 0.8                                |

Fuels are limited to natural gas only.

### **Compliance Demonstration Method:**

- (1) Combustion units are assumed to be in compliance with 401 KAR 51:017 and 401 KAR 59:015 lb/MMBtu standards while burning natural gas.
- (2) See subsection **5. Recordkeeping requirements.**

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****b. Specific Emission Limitations for Indirect Heat Exchangers in Emission Units, D03A, D03B, D04A, D04B, D11A, and D11B:**

Pursuant to 401 KAR 59:015, Section 4(2), emissions from each unit shall not exceed 20% opacity.

**c. Synthetic Minor Limits for PM<sub>2.5</sub>, NO<sub>x</sub> and CO<sub>2e</sub> emissions from Emission Units D11A and D11B. See Section D.4.****d. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]****Compliance Demonstration Method:**

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

**3. Testing Requirements:**

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1].

**4. Specific Monitoring Requirements:****a. The permittee shall conform to the monitoring requirements, as prescribed in its Periodic Monitoring Requirements table.****b. Specific Monitoring Requirements for Emission Unit D07:  
40 CFR 63 Subpart ZZZZ:**

The permittee shall monitor the hours of operation of the engine that is recorded through the non-resettable hour meter.

**5. Specific Recordkeeping Requirements:****a. The permittee shall conform to the record keeping requirements, as prescribed in its Periodic Monitoring Requirements table. All periodic monitoring records shall be maintained onsite for a period of not less than 5 years.****b. The permittee shall keep calendar month records of natural gas usage. These records shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.**

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****c. Specific Recordkeeping Requirements for Emission Units D03A, D03B, D04A, D04B, D11A and D11B:**

- (1) The permittee shall maintain records of volume of natural gas burned for each building with affected facilities included in Emission Units D03A, D03B, D04A, D04B, D11A and D11B. These records shall represent the most recent year. Following the end of each month, PM, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emissions shall be calculated on a twelve-month rolling total and recorded.
- (2) The permittee shall maintain records of the AP-42 emission factors and heating value of natural gas used in the compliance demonstration for unit D03A, D03B, D04A, D04B, D11A and D11B. The compliance demonstration records shall be updated if these values change.

**Specific Recordkeeping Requirements for Emission Unit D07:  
40 CFR 63 Subpart ZZZZ:**

- d. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the engine was operated and maintained according to the maintenance plan for the engine.
- e. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation [40 CFR 63.6655(f)].

**6. Specific Reporting Requirements:**

- a. The permittee shall submit summary monitoring reports every 6 months containing monitoring information listed in Sections B.4 and B.5 of this permit. (See Section F.5 for specific reporting dates.) The report shall list any “out of standard” conditions or periodic monitoring requirements, as listed in the Periodic Monitoring Requirements table below. If no “out of standard” conditions occurred, the permittee shall submit a negative report.

**Specific Reporting Requirements for Emission Unit D07:  
40 CFR 63 Subpart ZZZZ:**

- b. The permittee shall submit an initial notification that includes the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion.

**Specific Reporting Requirements for Emission Units D03B, D04B, D011B:  
40 CFR 63 Subpart DDDDD**

- c. The permittee shall submit compliance reports required in 40 CFR 63, Subpart DDDDD, 63.7550.
- d. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of this 40 CFR 63.7550, by the date in Table 9 to 40 CFR 63 Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550. For

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, instead of a semi-annual compliance report [40 CFR 63.7550(b)].

- (1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the permittee's source in 40 CFR 63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for the permittee's source in 40 CFR 63.7495 [40 CFR 63.7550(b)(1)].
  - (2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31 [40 CFR 63.7550(b)(2)].
  - (3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31 [40 CFR 63.7550(b)(3)].
  - (4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31 [40 CFR 63.7550(b)(4)].
- e. If the facility is subject to the requirements of a tune up the permittee must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of 40 CFR 63.7550, (xiv) and (xvii) of 40 CFR 63.7550, and paragraph (c)(5)(iv) of 40 CFR 63.7550 for limited-use boiler or process heater [40 CFR 63.7550(c)(1)].
- (1) Company and Facility name and address [40 CFR 63.7550(c)(5)(i)].
  - (2) Process unit information, emissions limitations, and operating parameter limitations [40 CFR 63.7550(c)(5)(ii)].
  - (3) Date of report and beginning and ending dates of the reporting period [40 CFR 63.7550(c)(5)(iii)].
  - (4) The total operating time during the reporting period [40 CFR 63.7550(c)(5)(iv)].
  - (5) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown [40 CFR 63.7550(c)(5)(xiv)].

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (6) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report [40 CFR 63.7550(c)(5)(xvii)].

**7. Specific Control Equipment Operating Conditions:**

The permittee shall install, maintain, and operate its control equipment in accordance with manufacturers' recommendations and good engineering practices.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### FACILITIES CONTROL - PERIODIC MONITORING REQUIREMENTS

| Emission Unit | Operation   | Equipment Monitored | Characteristic Monitored         | Parameter Monitored              | Method or Device | Monitoring Frequency | Recording Frequency | Calibration Frequency | Standard Range  |
|---------------|---|---------------------|----------------------------------|----------------------------------|------------------|----------------------|---------------------|-----------------------|---|
| D03A          | Indirect /Direct Bldg Heat Combustion Units > 1 MMBTU/hr (Plant 2, F-99-029 Only) | Plant 2 Natural Gas | Volume used                      | Standard Cubic Feet (SCF)        | N/A              | Monthly              | Monthly             | N/A                   | See Section B.2   |
| D03B          | Indirect /Direct Shop Process Combustions Unit > 1 MMBTU/hr (Plant 2)             | Plant 2 Natural Gas | Volume used                      | Standard Cubic Feet (SCF)        | N/A              | Monthly              | Monthly             | N/A                   | N/A   |
| D04A          | Indirect /Direct Bldg Heat Combustions Units > 1 MMBTU/hr (Plant 1)               | Plant 1 Natural Gas | Volume used                      | Standard Cubic Feet (SCF)        | N/A              | Monthly              | Monthly             | N/A                   | N/A   |
| D04B          | Indirect /Direct Shop Process Combustions Units > 1 MMBTU/hr (Plant 1)            | Plant 1 Natural Gas | Volume used                      | Standard Cubic Feet (SCF)        | N/A              | Monthly              | Monthly             | N/A                   | N/A   |
| D06           | Bulk / Tank Farm Storage (gasoline and virgin purge only)                         | Conservation Valve  | Valve Function                   | Movement                         | Visual           | Annual               | Annual              | N/A                   | Operational   |
| D07           | Back-up Generators  | Back-up Generators  | Hours of Operation per generator | Hours of Operation per generator | N/A              | Monthly              | Monthly             | N/A                   | < 50 hours per year per generator in non-emergency situations |
| D11A          | Indirect /Direct Bldg Heat Combustion Units > 1 MMBTU/hr                          | Line 3 Natural Gas  | Volume used                      | Standard Cubic Feet (SCF)        | N/A              | Monthly              | Monthly             | N/A                   | See Section B.2 and D.8                                       |
| D11B          | Indirect /Direct Shop Process Combustions Units > 1 MMBTU/hr                      | Line 3 Natural Gas  | Volume used                      | Standard Cubic Feet (SCF)        | N/A              | Monthly              | Monthly             | N/A                   | See Section B.2 and D.8                                       |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE  
REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**PAINT #1**

**PAINT #2**

**PLASTICS**



## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Description and Applicable Regulations:

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table.

**PAINT #1 Rebuilt, 250 BUILDING,** Operations include the following processes

| EMISSION UNIT | OPERATION <sup>1</sup>  | CONSTRUCTION COMMENCED                                   | CONTROL EQUIPMENT                      | OTHER APPLICABLE REGULATIONS     |
|---------------|---|--|--|----------------------------------|
| E01R          | Metal Pretreatment System, including degrease and conversion coating processes                | May 2016   | None                                   |                                  |
| E02R          | Electro deposition Coating System, including rinse tanks, dip tank, dry sanding, and oven     | May 2016<br>Modified December 2022                       | Oven – Thermal Oxidizer RTO-03 for VOC | 401 KAR 60:005<br>401 KAR 63:002 |
| E03R          | Metal Finishing Line, including metal assembly (Insignificant Activities List)                | May 2016   | None                                   |                                  |
| E04R          | Sealer Line and Oven, including:  |  |  |                                  |
|               | Solvent Wiping Stations   | May 2016   | None                                   | 401 KAR 63:002                   |
|               | Seam Sealer Stations<br>(robot and manual application)  | May 2016<br>Modified December 2022<br>Modified July 2024 | VOC Carryover to Sealer Oven           | 401KAR 63:002                    |
|               | Seal Damping Coat Area  | May 2016<br>Modified December 2022<br>Modified July 2024 | VOC Carryover to Sealer Oven           | 401 KAR 63:002                   |
|               | PVC Booths (Undercoat, mask, unmask, PVC rocker, flange & wheel arch, underbody and touch-up) | May 2016<br>Modified December 2022<br>Modified July 2024 | VOC Carryover to Sealer Oven           | 401 KAR 63:002                   |

1-All processes exclude non-process cleaning activities, except emission unit E13R.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION <sup>1</sup>             | CONSTRUCTION COMMENCED   | CONTROL EQUIPMENT   | OTHER APPLICABLE REGULATIONS     |
|---------------|------------------------------------|--|---|----------------------------------|
|               | Bake Oven                          | May 2016<br>Modified December 2022                               | Oven – Thermal Oxidizer RTO-03 for VOC  |                                  |
| E05R          | Primer Booths D and E, including:  |  |   |                                  |
|               | Solvent Wiping and Blow-off        | May 2016   | None  | 401 KAR 63:002                   |
|               | Soft Chip                          | April 2022 (NSPS)<br>December 2022 (NSR)                         | None  | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Primer Booths,<br>Lines D and E    | May 2016   | Lines D and E – Scrubbers TS11,<br>TS12 for PM<br>VOC Carryover to Heated Flash Off   | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Heated Flash Off,<br>Lines D and E | May 2016<br>2019   | Line D - Thermal Oxidizer RTO-05<br>Line E - Thermal Oxidizer RTO-06  |                                  |
| E07R          | Topcoat Lines D and E, including:  |  |   | 40 CFR64                         |
|               | Solvent Wiping and Blow-off Area   | May 2016   | None  |                                  |
|               | Basecoat Booths,<br>Lines D and E  | May 2016<br>Modified December 2022<br>Modified July 2024         | Lines D and E – Scrubbers TS11,<br>TS12 for PM<br>VOC Carryover to Heated Flash Off   | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Heated Flash Off,<br>Lines D and E | May 2016<br>2019<br>Modified December 2022                       | Line D - Thermal Oxidizer RTO-05<br>Line E - Thermal Oxidizer RTO-06  |                                  |
|               | Clearcoat Booths,<br>Lines D and E | May 2016<br>2019<br>Modified December 2022<br>Modified July 2024 | Lines D and E – Scrubbers TS11,<br>TS12 for PM<br>Line D - Thermal Oxidizer RTO-05<br>Line E - Thermal Oxidizer RTO-06<br>VOC Carryover to Oven | 401 KAR 60:005<br>401 KAR 63:002 |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>EMISSION UNIT</b> | <b>OPERATION<sup>1</sup></b>  | <b>CONSTRUCTION COMMENCED</b>                            | <b>CONTROL EQUIPMENT</b>   | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|---|--|--|-------------------------------------|
|                      | Bake Ovens, D and E   | May 2016<br>2019<br>Modified December 2022               | Oven D – Thermal Oxidizer RTO-05 for VOC<br>Oven E – Thermal Oxidizer RTO-06 for VOC | 401 KAR 60:005                      |
| E08R                 | Inspection Lines (Insignificant Activities List)  | May 2016   | None   |                                     |
| E09R                 | Blackout Coating, including grille blackout, wheelhouse blackout and windshield blackout  | May 2016<br>Modified December 2022<br>Modified July 2024 | Grille and Wheelhouse – Dry Filter TF05 for PM                                       | 401 KAR 60:005<br>401 KAR 63:002    |
| E10R                 | Moon Roof Installation (Insignificant Activities List)  | May 2016   | None   |                                     |
| E11R                 | Wax Coating, including cavity wax, hinge wax and spot wax   | May 2016<br>Modified December 2022<br>Modified July 2024 | None   | 401 KAR 63:002                      |
| E12R                 | Repair Deck Operations, including ED, sealer, primer, topcoat and blackout repairs  | May 2016   | None   | 401 KAR 60:005<br>401 KAR 63:002    |
| E13R                 | Non-Process Cleaning Activities, including caustic stripping, grate coating, water blasting, line purging, shot blasting, cold cleaner and surface cleaning | May 2016   | None   | 401 KAR 59:185<br>401 KAR 63:002    |
| E14R                 | Raw Material Supply Systems, including ED system supply and paint mix/supply rooms  | May 2016   | None   | 401 KAR 63:002                      |
| E15R                 | Water/Wastewater Treatment Operations, including all De-ionizing processes and sludge pool processes  | May 2016   | None   |                                     |
| E16R                 | Robot Teaching Booth (Insignificant Activities List)  | May 2016   | None   |                                     |
| E17R                 | Two Tone Masking Booth (Insignificant Activities List)  | May 2016   | None   |                                     |
| E18R                 | General Exhaust   | May 2016   | None   |                                     |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table.

**PAINT #2, 2000 BUILDING**, Operations include the following processes

| EMISSION UNIT | OPERATION <sup>3</sup>   | CONSTRUCTION COMMENCED                     | CONTROL EQUIPMENT                    | OTHER APPLICABLE REGULATIONS     |
|---------------|--|--|--------------------------------------|----------------------------------|
| F01           | Phosphate System, including de-greasing tank, rinse tanks, and phosphate dip tank        | March 22, 1991                             | None                                 |                                  |
| F02           | Electrodeposition Coating System, including rinse tanks, dip tank, dry sanding, and oven | March 22, 1991                             | Oven - Thermal Oxidizer TT02 for VOC | 401 KAR 60:005<br>401 KAR 63:002 |
| F03           | Metal Finishing Line, including metal assembly (Insignificant Activities List)           | March 22, 1991                             | None                                 |                                  |
| F04           | Sealer Line and Oven, including:   |  |                                      |                                  |
|               | Solvent Wiping Areas   | March 22, 1991<br>January 2016             | None                                 | 401 KAR 63:002                   |
|               | Seam Sealer Area<br>(robot and manual application)                                       | March 22, 1991<br>January 2016             | VOC Carryover to Oven                | 401 KAR 63:002                   |
|               | Damping Coat Area  | 2004<br>January 2016<br>Modified July 2024 | VOC Carryover to Oven                | 401 KAR 63:002                   |
|               | PVC Booths<br>(underbody and touch-up)   | March 22, 1991<br>January 2016             | VOC Carryover to Oven                | 401 KAR 63:002                   |
|               | Bake Oven  | March 22, 1991                             | Thermal Oxidizer TT03 for VOC        |                                  |
| F05           | Primer Booth and Oven, including:  |  |                                      |                                  |
|               | Solvent Wiping and Blow-off  | March 22, 1991                             | None                                 | 401 KAR 63:002                   |

2 -All processes exclude non-process cleaning activities, except emission units F13 and F25.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION <sup>3</sup>  | CONSTRUCTION COMMENCED  | CONTROL EQUIPMENT   | OTHER APPLICABLE REGULATIONS     |
|---------------|---|---|---|----------------------------------|
|               | Soft Chip   | March 22, 1991<br>Modified April 2022 (NSPS), December 2022 (NSR) | None  | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Exterior  | December, 2014  | Scrubber TS19 for PM<br>VOC Concentrator TC01 for VOC<br>Thermal Oxidizer TT10 for VOC<br>VOC Carryover to Oven | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Interior  | March 22, 1991  | Scrubber TS19 for PM<br>VOC Carryover to Oven   | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Door sash and Rocker  | March 22, 1991  | Scrubber TS19 for PM<br>VOC Carryover to Oven   | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Oven  | March 22, 1991  | Thermal Oxidizer TT05 for VOC   |                                  |
| F06           | Wet Sand Line, including wet sand and dry sand booth, re-coat dry sand booth, touch-up booth (not in Use) and oven (Not in use) | March 22, 1991  | None  |                                  |
| F07           | Topcoat Lines A and B, including:   |   |   | 40 CFR 64                        |
|               | Solvent Wiping and Blow-off Area  | March 22, 1991  | None  | 401 KAR 63:002                   |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION <sup>3</sup>  | CONSTRUCTION COMMENCED                           | CONTROL EQUIPMENT  | OTHER APPLICABLE REGULATIONS     |
|---------------|---|--|--|----------------------------------|
|               | All Coating Applications,<br>Lines A & B  | December, 2014                                   | Booth A – Scrubber TS23 and exhaust filters TF27 for PM<br>Booth B – Scrubber TS24 and exhaust filters TF28 for PM<br>Booth A – VOC Concentrator TC02 for VOC<br>Booth B – VOC Concentrator TC03 for VOC<br>Booth A – VOC Thermal Oxidizer TT06 for VOC (Back-up for RTO-03)<br>Booth B – Thermal Oxidizer TT08 for VOC (Back-up for RTO-03)<br>Booths A/B – Thermal Oxidizer RTO-03 for VOC<br>Booths A/B – VOC Carryover to Oven | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Bake Ovens A & B  | March 22, 1991                                   | Oven A – Thermal Oxidizer TT07 for VOC<br>Oven B – Thermal Oxidizer TT09 for VOC   | 401 KAR 60:005<br>401 KAR 63:002 |
| F08           | Inspection Lines (Insignificant Activities List)  | March 22, 1991                                   | None   |                                  |
| F09           | Blackout Coating, including grille blackout, wheelhouse blackout and windshield blackout and touch-up station | March 22, 1991<br>December 2014<br>April 1, 2017 | Blackout Booth - exhaust filters TF12 for PM<br>Underbody, Touchup Station – Filter TF12 for PM  | 401 KAR 60:005<br>401 KAR 63:002 |
| F10           | Moon Roof Installation (Insignificant Activities List)  | March 22, 1991                                   | None   |                                  |
| F11           | Wax Coating, including cavity wax, hinge wax, spot wax and rocker wax   | March 22, 1991<br>March, 2019                    | None   |                                  |
| F12           | Repair Deck Operations, including ED, sealer, primer, topcoat and blackout repairs                            | March 22, 1991                                   | None   | 401 KAR 60:005<br>401 KAR 63:002 |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>EMISSION UNIT</b> | <b>OPERATION<sup>3</sup></b>   | <b>CONSTRUCTION COMMENCED</b> | <b>CONTROL EQUIPMENT</b>                         | <b>OTHER APPLICABLE REGULATIONS</b> |
|----------------------|--|-------------------------------|--|-------------------------------------|
| F13                  | Non-Process Cleaning Activities, including, grate coating, water blasting, line purging, cold cleaner and surface cleaning           | March 22, 1991                | None   | 401 KAR 59:185<br>401 KAR 63:002    |
| F14                  | Raw Material Supply Systems, including ED system supply and paint mix/supply rooms   | March 22, 1991                | None   | 401 KAR 63:002                      |
| F15                  | Water/Wastewater Treatment Operations, including all De-ionizing processes and sludge pool processes (Insignificant Activities List) | March 22, 1991                | None   |                                     |
| F16                  | Robot Teaching Booth (Insignificant Activities List)   | March 22, 1991                | None   |                                     |
| F17                  | Two Tone Masking Booth (Insignificant Activities List)   | March 22, 1991                | None   |                                     |
| F18                  | General Exhaust  | March 22, 1991                | None   |                                     |
| F19                  | Electrodeposition Coating System, including rinse tanks, dip tank, dry sanding, and oven   | March 2014                    | VOC Carryover to Oven with Thermal Oxidizer TT12 | 401 KAR 60:005<br>401 KAR 63:002    |
| F20                  | Sealer and PVC application line and Oven   |                               |  |                                     |
|                      | Sealer Area<br>(robot and manual application)  | March 2014                    | VOC Carryover to Oven                            | 401 KAR 63:002                      |
|                      | Dampening Coat Area  | March 2014                    | VOC Carryover to Oven                            | 401 KAR 63:002                      |
|                      | PVC Area<br>(underbody coat robot and manual application)  | March 2014                    | VOC Carryover to Oven                            | 401 KAR 63:002                      |
|                      | Bake Oven  | August 2014                   | Thermal Oxidizer TT03 for VOC                    |                                     |
| F21                  | Primer Booth and Oven, including:  |                               |  |                                     |
|                      | Hood Soft Chip/Rocker Antichip   | March 2014                    | Scrubber TS25 for PM<br>VOC Carryover to Oven    | 401 KAR 60:005<br>401 KAR 63:002    |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION <sup>3</sup>  | CONSTRUCTION COMMENCED          | CONTROL EQUIPMENT   | OTHER APPLICABLE REGULATIONS     |
|---------------|---|---------------------------------|---|----------------------------------|
|               | Interior/ Exterior  | August 2014                     | Scrubber TS25 for PM<br>Automatic Zone – VOC Concentrator TC04 and Thermal Oxidizer TT13 for VOC<br>VOC Carryover to Oven | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Oven  | March 2014<br>December 26, 2016 | Thermal Oxidizer TT11 for VOC   |                                  |
| F22           | Topcoat Line C Booth and Oven, including:   |                                 |   | 40 CFR 64                        |
|               | Basecoat Booth  | March 2014<br>July 2016         | Scrubber TS25 for PM<br>VOC Carryover to Oven   | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Clearcoat Booth   | August 2014                     | Scrubber TS25 for PM<br>VOC Carryover to Oven<br>Automatic Zone – VOC Concentrator TC04 and Thermal Oxidizer TT13 for VOC | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Bake Oven   | March 2014<br>December 26, 2016 | Thermal Oxidizer TT11 for VOC   |                                  |
| F23           | Wax Coating, including cavity wax, hinge wax, spot wax and rocker wax   | March 2014<br>March, 2019       | None  |                                  |
| F24           | Repair Operations, including offline repair, underbody touchup booth and repair polish booth                  | March 2014                      | None  | 401 KAR 60:005<br>401 KAR 63:002 |
| F25           | Non-Process Cleaning Activities, including, grate coating, water blasting, line purging, and surface cleaning | March 2014                      | Work Practice Standards   | 401 KAR 63:002                   |
| F26           | Miscellaneous Process Cleaners - Wiping Solvents  | March 2014                      | None  | 401 KAR 63:002                   |



## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table, unless otherwise stated.

**PLASTICS, 400/400A BUILDING,** Operations include the following processes

| EMISSION UNIT | OPERATION   | CONSTRUCTION COMMENCED                | CONTROL EQUIPMENT  | OTHER APPLICABLE REGULATIONS                             |
|---------------|---|---------------------------------------|--|--|
| G01           | Thermal Injection Molding Operations  | 1991-2015<br>April 2019               | None   |  |
| G02           | Source Shutdown / Removed   | March 22, 1991                        | None   |  |
| G04           | Repair Painting   | March 22, 1991<br>July 18, 2016, 2018 |  | 401 KAR 63:002   |
| G05           | Raw Material Supply Systems, including injection part and bumper painting, exterior painting, injection molding (silos), monofoam, mold release, slush molding supply and regrind | March 22, 1991<br>April 2019          |  | 401 KAR 63:002   |
| G06           | Source Shutdown / Removed   | N/A                                   | N/A  |  |
| G07           | Source Reassigned to Emission Unit G22  | N/A                                   | N/A  |  |
| G08           | Source Shutdown / Removed   | N/A                                   | N/A  |  |
| G09           | Source Reassigned to Emission Unit G22  | N/A                                   | N/A  |  |
| G10           | Source Reassigned to G22  | N/A                                   | N/A  |  |
| G12           | Source Removed  | March 22, 1991                        | N/A  |  |
| G13           | Slush Molding Operation, including molding, miniblasting, dry ice machine, and repair painting  | March 22, 1991<br>April 2019          | System 1 – Fluidized Bed Filter RF01 for PM<br>System 2 – Fluidized Bed Filter RF02 for PM<br>System 3 – Fluidized Bed Filter RF03 for PM<br>System 4 – Fluidized Bed Filter RF04 for PM | 401 KAR 63:002   |
| G14           | Source Removed  | N/A                                   | N/A  |  |
| G14b          | Vacuum Form Machines  | Proposed June, 2025                   | N/A  | 401 KAR 63:020<br>*401 KAR 51:017 does not apply to G14b |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION   | CONSTRUCTION COMMENCED   | CONTROL EQUIPMENT  | OTHER APPLICABLE REGULATIONS     |
|---------------|---|--|--|----------------------------------|
| G15           | Source Removed  | N/A  | N/A  |                                  |
| G16           | Source Reassigned to Emission Unit G19  | N/A  | N/A  |                                  |
| G17           | Water/Wastewater Treatment Operations, including sludge pool processes  | March 22, 1991   | None   |                                  |
| G18           | Source Removed  | N/A  | N/A  |                                  |
| G19           | Non-Process Cleaning Activities, including paint stripping, water blasting, line purging, surface cleaning cold cleaner, jig cleaning and chemical honing | July 17, 1986/<br>March 22, 1991/<br>January 2011/<br>June 15, 2015/<br>January 2016 | None   | 401 KAR 59:185<br>401 KAR 63:002 |
| G20           | Monofoam Molding, including turntables, clamp molds, hot knife scoring / heat treating, day tanks   | July 17, 1986<br>July 2016/<br>April 2019  | None   |                                  |
| G21           | Exterior Part Painting Operations including:  |  |  | 40 CFR 64                        |
|               | Solvent Wiping, Line B1   | January 2016   | None   | 401 KAR 63:002                   |
|               | All Coating Applications, Line B1   | January 2016   | Booth B1 – Filter RF14 for PM<br>Booth B1 – Wet Scrubber RS16 for PM<br>Booth B1 (Primer/Base/Clear) – VOC Concentrator RC07 and Thermal Oxidizer RT11 for VOC | 401 KAR 63:002                   |
|               | Repair Painting, Line B1  | January 2016   | None   | 401 KAR 63:002                   |
|               | Bake Oven, Line B1  | January 2016   | None   |                                  |
| G22           | Bumper Painting Operations including:   |  |  | 40 CFR 64                        |
|               | Solvent Wiping, Lines G & H   | June 15, 2015  | None   | 401 KAR 63:002                   |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION   | CONSTRUCTION COMMENCED | CONTROL EQUIPMENT   | OTHER APPLICABLE REGULATIONS |
|---------------|---|------------------------|---|------------------------------|
|               | Coating Applications, Lines G & H                           | June 15, 2015          | Booth G – Wet Scrubber RS14 for PM<br>Booth H – Wet Scrubber RS15 for PM<br>Booths G and H - RT12 for VOC<br><br><i>Backup VOC Control equipment:</i><br><i>Booth G – Concentrator RC04 for VOC</i><br><i>Booth H – Concentrator RC05 for VOC</i><br><i>Booth G – Thermal Oxidizer RT08 for VOC</i><br><i>Booth H – Thermal Oxidizer RT09 for VOC</i> | 401 KAR 63:002               |
|               | Repair Painting, Lines G & H                                | June 15, 2015          | None  | 401 KAR 63:002               |
|               | Bake Oven, Lines G & H                                      | June 15, 2015          | Oven G & H - None   |                              |
| G24           | General Exhaust   | March 22, 1991         | None  |                              |
| G25           | Manifold Assembly Operation (Insignificant Activities List) | Aug 1, 1999            | None  |                              |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION   | CONSTRUCTION COMMENCED | CONTROL EQUIPMENT   | OTHER APPLICABLE REGULATIONS |
|---------------|---|------------------------|---|------------------------------|
| G26           | Plastic Bumper and Rocker Painting Operations including:  |                        |   |                              |
|               | Primer/Basecoat/Clearcoat Booths  | August 2014            | Primer Booth – Filters RF11 and Wet Scrubber RS13 for PM<br>Basecoat Booth – Filters RF12 and Wet Scrubber RS13 for PM<br>Clearcoat Booth – Filters RF13 and Wet Scrubber RS13 for PM<br>Primer and Basecoat Booth (Automatic Zone) and Clearcoat Booth (Automatic Zone) - RT12 for VOC<br><i>Backup VOC Control equipment:</i><br><i>Primer and Basecoat Booth (Automatic Zone) – VOC Concentrator RC06 and Thermal Oxidizer RT10 for VOC</i><br><i>Clearcoat Booth (Automatic Zone) – Concentrator RC03 and Thermal Oxidizer RT07 for VOC</i> | 401 KAR 63:002               |
|               | Bake Oven, Line D   | March 2014             | None  |                              |
| G27           | Non-Process Cleaning Activities, including paint stripping, water blasting, line purging, surface cleaning and jig cleaning | March 2014             | Work Practice Standards   | 401 KAR 63:002               |
| G28           | Miscellaneous Process Cleaners - Wiping Solvents  | March 2014             | None  | 401 KAR 63:002               |
| G29           | Four Plasma Robots (Insignificant Activities List)  | 2017                   | None  |                              |

## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **APPLICABLE REGULATIONS:**

**401 KAR 51:017**, *Prevention of significant deterioration of air quality*

**401 KAR 59:010**, *New Process Operations*

**401 KAR 59:185**, *New solvent metal cleaning equipment*

**401 KAR 60:005 Section 2(2)(tt) 40 C.F.R. 60.390 to 60.398 (Subpart MM)**, *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations*, (Refer to Section B Group Requirements).

**401 KAR 63:002 Section 2(4)(ooo), 40 C.F.R. 63.3080 to 63.3176, Tables 1 through 4, and Appendix A (Subpart IIII)**, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks* (Refer to Section B Group Requirements)

**40 CFR 64**, *Compliance Assurance Monitoring (CAM)*, (See Section E, EU E05R, E07R, F07, F22, G21, G22 and G26).

### **STATE-ORIGIN REQUIREMENTS:**

**401 KAR 63:020**, *Potentially hazardous matter or toxic substances*

#### **1. Operating Limitations:**

- a. The usage rates of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in Section B.2. Wherever practicable, the permittee shall utilize work practices to minimize emissions from non-process cleaning activities.
- b. The permittee shall install, maintain, and operate its control equipment in accordance with manufacturers' recommendations and good engineering practices. The permittee shall conform to the operating conditions, as prescribed in the periodic monitoring requirements table. Refer to Section B Group Requirements for requirements specific to 40 CFR 63 Subpart IIII.
- c. See Periodic Monitoring Requirements Table.
- d. **401 KAR 51:017: Specific Operating Conditions for Purging Solvent Borne Solvents:** Except for applicator nozzles/tips, coating applicator purging solvents shall be collected and retained until such time as they are shipped offsite for disposal or recycled. Waste purge solvent tanks shall be kept closed when not in use.
- e. **Specific Operating Limitations for Cold Cleaner in Emission Units E13R, F13, G19:** The permittee shall comply with control equipment and operating requirements specified in 401 KAR 59:185, Section 4 (1) & (2). Refer to Section B Group Requirements.
- f. **401 KAR 51:017:** The permittee shall operate the control equipment listed in the Periodic Monitoring Requirements table.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Emission Limitations:**

- a. **401 KAR 59:010, Section 3 (1):** The opacity of visible emissions from each stack shall not equal or exceed 20 percent.

**Compliance Demonstration Method:**

- (1) See Monitoring Requirements, B.4.  
(2) See periodic monitoring requirements table.

- b. **401 KAR 59:010, Section 3 (2):**

Emission of particulate matter from a control device or stack of any affected facility up to a process rate of 1000 lbs/hr shall not exceed **2.34** lbs/hr. For processing rates greater than 1000 lbs/hr up to 60,000 lbs/hr, particulate emissions shall not exceed the emission rate calculated by the following equation:

$$E = 3.59(P)^{0.62}$$

E = the PM emissions rate (pounds/hour)

P = the process rate (tons/hour)

**Compliance Demonstration Method:**

- (1) For affected facilities that use transfer efficiency in the determination of PM/PM<sub>10</sub> emissions the permittee shall:

- i. Use the transfer efficiency value specified in 40 CFR 60.393 for the application method used; or
- ii. Use a transfer efficiency value determined through testing approved by the Division.

Previous transfer efficiency tests may be accepted if the following conditions are met:

- iii. The previous test must have been conducted using methods and conditions approved by the Division.
  - iv. Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.
  - v. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the operating parameters.
- (2) The total process weight, "P" as defined above must reflect a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period. This period shall not exceed 24 hours. In the case where there are no periodic monitoring requirements associated with the affected facility, continuous compliance shall be assured as long as there are no process or operational changes. The determination of the emission rate "E" in pounds per hour for compliance with 401 KAR 59:010 may also be used to demonstrate compliance with 401 KAR 51:017, except that the period allowed for the determination of "P" shall be one month.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(3) For affected facilities with periodic monitoring requirements for particulate emissions the source shall demonstrate continuous compliance by adhering to the periodic monitoring requirements table. The source must maintain a record of deviations from “standard ranges” in the periodic monitoring requirements table and determine the particulate emissions from the deviation. The duration of the deviation shall be the period between when the “out of standard condition” was noted and when it is corrected. If an engineering evaluation utilizing a control efficiency that is used to determine particulate emissions for the affected facility, the allowed control efficiency shall be zero during the deviation period unless testing is conducted to prove otherwise.

- c. **401 KAR 51:017:** Emissions of VOC and PM shall not exceed those in the table below, as calculated on a monthly basis:

| EMISSION UNIT   | OPERATION                        | VOC LIMIT (lb/job) | PM LIMIT (lb/hr) |
|-----------------|----------------------------------|--------------------|------------------|
| <b>Paint #1</b> |                                  |                    |                  |
| E01R            | Phosphate System                 | N/A                | 0.54             |
| E02R            | Electro deposition System        | 0.185              | N/A              |
| E04R            | Sealer Line/Oven                 | 1.15               | N/A              |
| E05R            | Primer Line/Oven                 | 2.11               | 4.02             |
| E07R            | Topcoat Booth/Oven               | 3.86               | 7.43             |
| E09R            | Blackout Coating                 | 0.11               | 0.59             |
| E11R            | Wax Coating                      | 0.27               | 1.33             |
| E12R            | Repair Coating and Sanding       | N/A                | 0.93             |
| E13R            | Non-Process Cleaning Activities  | 3.09               | 0.26             |
| E14R            | Raw Material Supply              | N/A                | 2.23             |
| E15R            | Water/Wastewater Treatment       | N/A                | 1.63             |
| E18R            | General Exhaust                  | N/A                | 1.02             |
| <b>Paint #2</b> |                                  |                    |                  |
| F02             | Electro Dip System               | 0.19               | 0.22             |
| F04             | Sealer Line/Oven                 | 1.15               | N/A              |
| F05             | Primer Line/Oven                 | 2.73               | 1.91             |
| F06             | Wet Sand Line/Oven               | 0.13               | 0.53             |
| F07             | Topcoat A,B Booth/Oven           | 3.86               | 7.42             |
| F09             | Blackout Coating                 | 0.55               | 0.22             |
| F11             | Wax Coating                      | 0.27               | N/A              |
| F12             | Repair Coating and Sanding       | N/A                | 0.18             |
| F13             | Non-Process Cleaning Activities  | 3.09               | 1.00             |
| F18             | General Exhaust                  | N/A                | 1.00             |
| F19             | Electrodeposition Coating System | 0.116              | N/A              |
| F20             | Sealer and PVC application line  | 0.8                | N/A              |
| F21             | Primer Booths/Oven               | 1.026              | N/A              |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

|                |   |       |      |
|----------------|---|-------|------|
| F22            | Topcoat Booths/Oven                               | 3.54  | N/A  |
| F25            | Non-Process Cleaning - Purging/Cleaning           | 1.68  | N/A  |
| F26            | Process Cleaners                                  | 0.186 | N/A  |
| <b>Plastic</b> |   |       |      |
| G04            | Repair Painting                                   | 0.26  | 0.41 |
| G13            | Slush Molding Operation                           | N/A   | 1.28 |
| G17            | Water/Wastewater Treatment                        | N/A   | 0.56 |
| G19            | Non-Process Cleaning Activities<br>Purge/Cleaning | 1.17  | 0.14 |
| G20            | Monofoam  | 0.24  | 2.36 |
| G21            | Exterior Part Painting                            | 0.21  | 0.99 |
| G22            | Bumper Painting                                   | 1.04  | 5.42 |
| G24            | General Exhaust                                   | N/A   | 1.73 |
| G26            | Bumper and Rocker Painting                        | 0.88  | N/A  |
| G27            | Non-Process Cleaning Activities<br>Purge/Cleaning | 0.36  | N/A  |
| G28            | Process Cleaners – Wiping Solvents                | 0.45  | N/A  |

### Compliance Demonstration Method:

$$VOC\ Value = \frac{\sum U_i * V_i * E_i * (1 - C_i * F_i)}{P}$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency,

P = Production rate (number of vehicles produced)

PM Value = Measurement, when prescribed by periodic monitoring requirements table.

Otherwise PM shall be calculated as follows:

$$PM\ Value = \sum \frac{P}{P_m} * E_i, \text{ or equivalent method approved by the Division}$$

P = Average shop production throughput,

P<sub>m</sub> = Maximum vehicle production rate

E<sub>i</sub> = PM Emission Factor (controlled) for each stack “i”.

See Compliance Demonstration Method for 401 KAR 59:010, in this Section.



## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. **401 KAR 51:017:** Emissions of VOC shall not exceed the following, based on a 12-month rolling total.

| EMISSION UNIT   | VOC LIMIT<br>(tons/year) |
|---|--------------------------|
| Paint #1 Rebuilt  | 809                      |
| Paint #2 (Emission Unit F01 through F18)                    | 1,571                    |
| Plastic (Line 2 operations)                                 | 498                      |
| Plastics Shop*  | 1047                     |
| Paint #2, Line 3 operations (Emission Unit F19 through F24) | 197                      |
| Plastics, Line 3 operations (Emission Unit G26)             | 31                       |

\* Emissions from entire Plastic Shop exclude Line 3 operations.

### Compliance Demonstration Method:

$$VOC\ Value = \sum U_i * V_i * E_i * (1 - C_i * F_i)$$

$U_i$  = Usage of material "i",  
 $V_i$  = Volatile organic compound (VOC) content,  
 $E_i$  = VOC Emission Factor,  
 $F_i$  = Control efficiency,  
 $C_i$  = Collection efficiency.

- e. **401 KAR 51:017:** Emissions of PM shall not exceed the following, based on a 12-month rolling total.

| EMISSION UNIT  | PM LIMIT<br>(tons/year) |
|--|-------------------------|
| Paint #1 Rebuilt   | 25.65                   |
| Paint #2 (Emission Unit F01 through F18)                   | 60.62                   |
| Plastic (Line 2 operations)                                | 27.4                    |
| Plastics Shop (Emission Unit G01 through G25, except G14b) | 68.5                    |

### Compliance Demonstration Method:

- (1) Calculated from the following equation, except where testing specified (see item 3)

$$PM\ Value = \sum P * E_i$$

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

P = Average shop production throughput

E<sub>i</sub> = PM Emission Factor (controlled) for “i”,

(2) See Compliance Demonstration Method for 401 KAR 59:010, in this Section.

(3) Testing, see periodic monitoring requirements table.

- f. **401 KAR 51:017:** Emissions of VOC shall not exceed the following from process and non-process cleaning operations including paint purging, based on a 12-month rolling total.

| EMISSION UNIT  | VOC LIMIT<br>(tons/year) |
|--|--------------------------|
| Paint #2, Line 3 operations<br>(Emission Unit F25 and F26) | 65                       |
| Plastics, Line 3 operations<br>(Emission Unit G27 and G28) | 28                       |

### Compliance Demonstration Method:

$$VOC\ Value = [\sum (U_i * V_i * E_i) - \sum (R * V)] * (1 - C_i * F_i)$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency,

R = Volume of reclaimed purging solvent,

V = VOC content of reclaimed purging solvent.

- g. Synthetic Minor Limit for PM<sub>2.5</sub> emissions from Line 3 Operations (Emission Unit F19 through F26 and G26). See Section D.4.

- h. **40 CFR 60 Subpart MM - 60.392:**

The permittee shall not cause the discharge into the atmosphere of more than the following, as calculated on a monthly average basis:

| NSPS CATEGORY<br>(Affected Facilities) | EMISSION LIMIT<br>(kg VOC per liter solid<br>applied) | COATINGS INCLUDED IN GROUP   |
|--|---|--|
| (a) - Primecoat Operations             | 0.17  | E02R, F02 & F19 - Electro deposition   |
| (b) - Guidecoat Operations             | 1.40  | E04R, F04 & F20 - Sealer<br>E05R, F05 & F21 - Soft Chip, Interior,<br>Exterior<br>E12R, F12 & F24 - Repair |
| (c) - Topcoat Operations               | 1.47  | E05R & F05 - Door sash and Rocker<br>Panel Black<br>E07R, F07 & F22 - Topcoat Solid, Base,<br>Clear        |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

| NSPS CATEGORY<br>(Affected Facilities) | EMISSION LIMIT<br>(kg VOC per liter solid applied) | COATINGS INCLUDED IN GROUP                         |
|--|--|--|
|  |  | E09R & F09 – Blackouts<br>E12R, F12 & F24 - Repair |

### Compliance Demonstration Method:

See Section B Group Requirements

### i. 40 CFR 63 Subpart IIII, Section 63.3091 - Emission Limits for Existing Sources

| EMISSION UNITS   | NESHAP AFFECTED OPERATIONS   | EMISSION LIMIT   |
|--|--|--|
| E02R, F02 & F19<br>E04R, F04 & F20<br>E04R, F04, F20<br>E04R, F04 & F20<br>E05R, F05 & F21<br>E07R, F07 & F22<br>E09R & F09<br>E11R, F11 & F23<br>E12R, F12 & F24<br>G04, & G26<br>G21, G22<br>E13R, F13, F25, G19 & G27<br>E04R, E05R, E07R, F04, F05, F07, F26 & G28 | Electro deposition primer<br>Primer-surfacer<br>Adhesives and sealers<br>Deadener<br>Primer-surfacer<br>Topcoat<br>Blackout<br>Wax Coating<br>Final Repair<br>Coatings and repair painting<br>Coating, process cleaning* and repair painting<br>Non-Process Cleaning*<br>Process Cleaning* | Refer to Section B Group Requirements for Group Emission Limits. |

\* Applicable only to organic-HAP-containing cleaning materials used in coating operations for which emission limits are established under 40 CFR 63 Section 63.3901(a) through (d).

### Compliance Demonstration Method:

Refer to Section B Group Requirements.

- j. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

### Compliance Demonstration Method:

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

- a. The permittee shall perform stack testing according to the standards and schedule specified in the Periodic Monitoring Requirements table.
- b. The permittee shall conduct initial performance tests for RT12 using EPA Method 25A, or an alternate method approved by the Administrator, to determine the destruction efficiency of the oxidizer in accordance with SECTION G.4. and G.5. of this permit (V-20-026 R1).

**4. Specific Monitoring Requirements:**

- a. The permittee shall conform to the monitoring requirements, as prescribed in the Periodic Monitoring Requirements table. The permittee shall monitor raw material usages as necessary to demonstrate compliance with all requirements of this permit. Refer to Section B Group Requirements for requirements specific to 40 CFR 60 Subpart MM and 40 CFR 63 Subpart IIII.
- b. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume).
- c. Stacks that are subject to specific periodic visible emissions monitoring are identified in the Periodic Monitoring Requirements table and are subject to the conditions specified below:
  - (1) The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack on a weekly basis. See Section B 4.b.
  - (2) If no visible emissions are detected for a period of 1 month then the monitoring frequency shall be reduced from weekly to monthly.
  - (3) If visible emissions are detected during the monthly check, then the weekly check shall be re-instated until there are no visible emissions detected for 1 month period.
  - (4) If the method of operation changes for processes emitting to the atmosphere, then the requirement to perform weekly qualitative observations will be reinstated.
- d. **Specific Monitoring Requirements for Emission Units E02R, E04R, E05R, E07R, F02, F04, F05, F07, F19, F20, F21, F22, G21, G22 and G26:**

An alarm system shall be installed on these emission units which will notify the operator of the units in the event the burner temperature of the incinerator falls below indicator range as prescribed by periodic monitoring requirements table.

**Specific Monitoring Requirements for VOC Concentrator**

- e. The performance of the adsorbent material will be verified by examining representative samples and testing the performance (adsorbent activity) per the manufacturer's recommendation. The results shall be assessed (e.g., compared to historical results or results for new adsorbent) and the adsorbent shall be replaced as appropriate.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- f. Alternatively, performance can be checked with a portable flame ionization detector (FID), photo ionization detector (PID), or other appropriate equipment or methodologies. In this case, the concentration of the adsorber outlet stream, or the percent reduction in concentration of the inlet/outlet stream measurements are compared to historical data from performance tests. The results shall be assessed and the adsorbent shall be replaced as appropriate.

**401 KAR 51:017, Section 16(5)(c). Source Obligation**

- g. The permittee shall monitor and calculate annual VOC emissions from emission units A03, A05, A10 (Case ED Coating Repair), A14, C02, C06, C08, C09, D06, E02R, E04R, E05R, E07R, E09R, E11R, E13R, G14b, G21 and G22 and maintain a record of the annual emissions, in tons per year on a calendar year basis for five years following resumption of regular operations after the year 2024-2026 EV battery modification to Line #1. The source shall submit a report to the Division if:
  - (1) The annual VOC emissions, in tons per year, from this proposed project exceeds the baseline actual emissions by a significant amount for these pollutants; and
  - (2) The VOC emissions exceed the projected actual emissions as submitted in the application for the Line #1 modification.
- h. The permittee shall monitor and calculate annual VOC emissions from emission units E05R, F05, C06, E13R, F13 and maintain a record of the annual emissions, in tons per year on a calendar year basis for five years following resumption of regular operations after the year 2022 Camry model year change modifications to Line #1 and Line #2, including soft-chip paint additions, and increased adhesive and solvent use. The source shall submit a report to the Division if:
  - (1) The annual VOC emissions, in tons per year, from this proposed project exceeds the baseline actual emissions by a significant amount for these pollutants; and
  - (2) The VOC emissions exceed the projected actual emissions as submitted in the application for the Line 1 and 2 Camry modification.

**5. Specific Recordkeeping Requirements:**

- a. The permittee shall conform to the record keeping requirements, as prescribed in the Periodic Monitoring Requirements table. The permittee shall maintain monthly and annual records of the maximum material usage rates and maximum vehicle production rates for each emission unit which uses a control device to demonstrate compliance with the pounds per job emission limits for VOC specified in subsection 2. **Emission Limitations.** These records shall specify the methodology used to determine the maximum material usage rate, and must reflect the most current technology used.
- b. Refer to Section B Group Requirements for requirements specific to 40 CFR 60 Subpart MM and 40 CFR 63 Subpart IIII.
- c. The permittee shall maintain a log of the visual observations noting date, time, initials of observers, and records of corrective actions taken as a result of visible emissions from a stack and records of any Reference Method 9 readings performed.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- d. In addition, for all required emissions control equipment, the permittee shall keep the following records:
- (1) Design or manufacturer's specifications.
  - (2) Preventive maintenance records related to performance of control equipment.
  - (3) All periods, during normal operating conditions, where parameters listed in the periodic monitoring requirements table are "out of standard". For thermal oxidizers and VOC wheel concentrators, "out of standard" is defined as a confirmed three-hour period during which the average of the monitored values fails to meet the specified temperature requirements.
  - (4) All periods, during normal operating conditions, where emissions control equipment, required by this permit, is not operating.
  - (5) All periods, during normal operating conditions, where emissions control equipment, required by this permit, is bypassed.
  - (6) Description of operating, temperature-measuring devices (e.g., automatic strip charts, digital data acquisition systems).
  - (7) Data from the temperature-measuring devices (as prescribed by the periodic monitoring requirements table) and any temporary data logged manually as back up.
  - (8) Inspection reports and maintenance performed in response to recommendations in inspection reports.
  - (9) Monitoring system malfunctions.
  - (10) Corrective actions taken in response to "out of standard" conditions as specified in the periodic monitoring requirements table.
  - (11) Calibration records for monitoring equipment specified in the periodic monitoring requirements table.
  - (12) Records documenting the results of any required inspection and repair, as a result of a recorded opacity over 20%.

**Thermal Oxidizer Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information for the thermal oxidizer:

- e. All 3-hour periods (during coating operations) during which the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer determined during the most recent performance test which demonstrated compliance. Each occurrence shall be considered a deviation from permit requirements. See Section F.6.
- f. During all periods of operation of the thermal oxidizer in which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test which demonstrated compliance, or other malfunction of the thermal oxidizer, a daily log of the following information shall be kept:
- (1) Whether any air emissions were visible from the facilities associated with the thermal oxidizer.
  - (2) Whether visible emissions were normal for the process.
  - (3) The cause of the visible emissions.
  - (4) Corrective action(s) taken shall be recorded.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****VOC Concentrator Specific Recordkeeping Requirements:**

- g. The permittee shall maintain records of the following information for the VOC concentrator:
  - (1) All periods (during coating operations) during which the 3-hour average desorption gas inlet temperature is more than 8°C (15°F) below the average desorption gas inlet temperature determined during the most recent performance test, which demonstrated compliance. Each occurrence shall be considered a deviation from permit requirements. See Section F.6.
  - (2) During all periods of operation of the VOC concentrator in which the 3-hour average desorption gas inlet temperature is more than 8°C (15°F) below the average desorption gas temperature determined during the most recent performance test which demonstrated compliance, or other malfunction of the VOC concentrator, a daily log of the following information shall be kept:
  - (3) Whether any air emissions were visible from the facilities associated with the VOC concentrator.
  - (4) Whether visible emissions were normal for the process.
  - (5) The cause of the visible emissions.
  - (6) Corrective action(s) taken shall be recorded.
- h. The permittee shall keep calendar month records of usage of all applicable raw materials. Following the end of each month, Volatile Organic Compounds (VOC) emissions and Particulate Matter (PM) emissions shall be calculated on a twelve-month rolling total basis and recorded. Following the end of each month, pounds per job limits for VOC and pounds per hour limits for PM shall be calculated and recorded. These records shall represent the most recent year and shall show compliance with VOC and PM emission limitations listed in this permit. These records shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality. See Section B Group Requirements.
- i. All records required by this permit shall be kept onsite for a minimum of 5 years.
- j. The permittee shall maintain records of the annual emissions, in tons per year on a calendar year basis for emission unit G22 and its line purging (G19) for 5 years according to subsection **4. Specific Monitoring Requirements h.**

**6. Specific Reporting Requirements:**

- a. The permittee shall submit summary monitoring reports every 6 months containing monitoring information listed in Sections B.4, B.5, D.4 and D.6 of this permit. (See Section F.5 for specific reporting dates.) The report shall list any “out of standard” conditions for periodic monitoring requirements, as listed in the Periodic Monitoring Requirements table below. If no “out of standard” conditions occurred, the permittee shall submit a negative report.
- b. See subsection **4. Specific Monitoring Requirements h.**

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****7. Specific Control Equipment Operating Conditions:**

a. See Section B.1, Section B Group Requirements, and Section E.

**b. Specific Operating Limitations for Thermal Oxidizers:**

- (1) The average combustion chamber temperature in any 3-hour period shall not fall more than 28°C (50°F) below the combustion temperature limit established during the most recent performance test, which demonstrated compliance.
- (2) The permittee shall use the data collected during the performance test to calculate and record the average combustion temperature. This average combustion temperature is the minimum set point for the thermal oxidizer. The minimum-operating limit for thermal oxidizers is 28°C (50°F) below the minimum set point temperature.

**Compliance Demonstration Method:**

The permittee must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. Compliance shall be demonstrated by monitoring and recording the combustion temperature as required in the Periodic Monitoring Requirements table, averaged over 3 hours.

**c. Specific Operating Limitations for VOC Concentrators:**

- (1) The permittee must keep the set point for the desorption gas inlet temperature no lower than 6°C (10°F) below the lower of that set point during the last successful performance test for the concentrator and the average desorption gas inlet temperature established during the performance test.
- (2) The permittee shall use the data collected during the performance test to calculate and record the average desorption gas inlet temperature. The minimum operating limit for the concentrator is 8°C (15°F) below the average desorption gas inlet temperature established during the performance test.

**Compliance Demonstration Method:**

Compliance shall be demonstrated by monitoring and recording desorption gas inlet temperature as required by the periodic monitoring requirements table, averaged over 3 hours.



## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 8. Alternate Operating Scenarios:

Alternate operating scenarios for Emission Units F21 Primer Booth and F22 Topcoat Booth:

#### Description and Applicable Regulations:

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table.

| EMISSION UNIT | OPERATION                          | CONSTRUCTION COMMENCED          | CONTROL EQUIPMENT  | OTHER APPLICABLE REGULATIONS     |
|---------------|------------------------------------|---------------------------------|--|----------------------------------|
| F21           | Primer Booth and Oven, including:  |                                 |  |                                  |
|               | Hood Soft Chip/Rocker Antichip     | July 2016                       | Scrubber TS27 for PM<br>VOC Carryover to Oven  | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Interior/ Exterior                 | July 2016                       | Scrubber TS27 for PM<br>Automatic Zone – VOC Concentrator<br>TC05 (optional) and Thermal Oxidizer<br>TT14 for VOC<br>VOC Carryover to Oven | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Oven                               | July 2016                       | Thermal Oxidizer TT15 for VOC  |                                  |
| F22           | Topcoat Booth and Oven, including: |                                 |  | 40 CFR 64                        |
|               | Basecoat Booth                     | March 2014                      | Scrubber TS25 for PM<br>VOC Carryover to Oven  | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Clearcoat Booth                    | August 2014                     | Scrubber TS25 for PM<br>VOC Carryover to Oven<br>Automatic Zone – VOC Concentrator<br>TC04 and Thermal Oxidizer TT13 for VOC               | 401 KAR 60:005<br>401 KAR 63:002 |
|               | Bake Oven                          | March 2014<br>December 26, 2016 | Thermal Oxidizer TT11 for VOC  |                                  |

#### Emission Limitations:

- a. **401 KAR 51:017:** Emissions of VOC from Emission Unit F25 (Non-Process Cleaning Activities including paint purging) in this alternate operating scenario shall not exceed 0.75 lb/job, as calculated on a monthly basis.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 8. Alternate Operating Scenarios (continued):

#### Compliance Demonstration Method:

$$VOC\ Value = \frac{\sum U_i * V_i * E_i * (1 - C_i * F_i)}{P}$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency,

P = Production rate (number of vehicles produced)

PM Value = Measurement, when prescribed by periodic monitoring requirements table. Otherwise PM shall be calculated as follows:

PM Value = SUM (P/P<sub>m</sub> x E<sub>i</sub>), or equivalent method approved by the Division

P = Average shop production throughput,

P<sub>m</sub> = Maximum vehicle production rate

E<sub>i</sub> = PM Emission Factor (controlled) for each stack “i”.

See Compliance Demonstration Method for 401 KAR 59:010, in this Section.

- b. **401 KAR 51:017:** The total VOC emissions from Emission Units F25 and F26 (Process and Non-Process Cleaning Activities including paint purging) in this alternate operating scenario shall not exceed 33 tons per year, based on a 12-month rolling total.

#### Compliance Demonstration Method:

$$VOC\ Value = [\sum (U_i * V_i * E_i) - \sum (R * V)] * (1 - C_i * F_i)$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency,

R = Volume of reclaimed purging solvent,

V = VOC content of reclaimed purging solvent.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Alternate Operating Scenario for Emission Units G22 and G26 Bumper Paint Booths VOC Control Equipment:**

|     |   |               |   |                |
|-----|---|---------------|---|----------------|
| G22 | Bumper Painting Operations:<br><br>Coating Applications, Lines G & H                    | June 15, 2015 | Booth G – Wet Scrubber RS14 for PM<br>Booth H – Wet Scrubber RS15 for PM<br>Booth G (Clear) – Concentrator RC04 for VOC<br>Booth H (Clear) – Concentrator RC05 for VOC<br>Booth G (Clear) – Th.Oxidizer RT08 for VOC<br>Booth H (Clear) – Th.Oxidizer RT09 for VOC  | 401 KAR 63:002 |
| G26 | Plastic Bumper and Rocker Painting Operations::<br><br>Primer/Basecoat/Clearcoat Booths | August 2014   | Primer Booth – Filters RF11 and Wet Scrubber RS13 for PM<br>Basecoat Booth – Filters RF12 and Wet Scrubber RS13 for PM<br>Clearcoat Booth – Filters RF13 and Wet Scrubber RS13 for PM<br>Primer and Basecoat Booth (Automatic Zone) – VOC Concentrator RC06 and Thermal Oxidizer RT10 for VOC<br>Clearcoat Booth (Automatic Zone) – Concentrator RC03 and Thermal Oxidizer RT07 for VOC | 401 KAR 63:002 |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### PAINT #1 Rebuilt - PERIODIC MONITORING REQUIREMENTS

| Emission Unit | Operation  | Equipment Monitored               | Characteristic Monitored | Parameter Monitored            | Method or Device            | Monitoring Frequency | Recording Frequency                      | Calibration Frequency | Standard Range  |
|---------------|--|-----------------------------------|--------------------------|--------------------------------|-----------------------------|----------------------|--|-----------------------|---|
| E02R & E04R   | Electro Deposition Oven & Sealer Oven                                | Thermal Oxidizer (RTO-03)         | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***        | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Temperature Limit   |
| E02R & E04R   | Electro Deposition Oven & Sealer Oven                                | Thermal Oxidizer (RTO-03)         | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 90%   |
| E05R          | Primer Booth/Oven  | Entrance/ Exit Bypass Hood        | Primer Emissions         | Opacity                        | Visual                      | Refer to Section B.4 | Refer to Section B.4                     | N/A                   | < 20 Percent  |
| E05R & E07R   | Primer-Booth Topcoat-Booth   | Booth Scrubber (TS11, TS12)       | PM Removal Efficiency    | Water Flow                     | Flow Meter                  | Continuous           | Hourly & Each occurrence of an alarm     | Annual                | Primer, Clear Exterior : 30-80 gpm<br>Base Exterior, Clear Interior 40-110 gpm<br>Base Exterior, 50-140 gpm |
| E05R          | Primer-Booth   | Booth Exhaust                     | Emission Rate            | Particulate Emission           | Stack Test (EPA Method 17)  | Every 5 Years*       | Every 5 Years*                           | Each Test             | See Section B.2   |
| E05R & E07R   | Primer & Basecoat - Heated Flash Off, Clearcoat-Booth & ovens (D, E) | Thermal Oxidizer (RTO-05, RTO-06) | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***        | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit   |
| E05R & E07R   | Primer & Basecoat - Heated Flash Off, Clearcoat-Booth & ovens (D, E) | Thermal Oxidizer (RTO-05, RTO-06) | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 95%   |
| E07R          | Topcoat Booths   | Booth Exhaust                     | Emission Rate            | Particulate Emission           | Stack Test (EPA Method 17)  | Every 5 Years*       | Every 5 Years*                           | Each Test             | See Section B.2   |
| E09R          | Blackout Coating   | Exhaust Filters (TF05)            | PM Removal Efficiency    | All Final Filters In Place     | Visual Inspection           | Monthly              | Monthly                                  | N/A                   | No Visible By-Pass  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>                                 | <b>Equipment Monitored</b> | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b> | <b>Method Device or</b> | <b>Monitoring Frequency</b> | <b>Recording Frequency</b> | <b>Calibration Frequency</b> | <b>Standard Range</b>        |
|----------------------|--|----------------------------|---------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------|------------------------------|------------------------------|
| E09R                 | Blackout Coating                                 | Exhaust Filters (TF05)     | PM Removal Efficiency           | Pressure Drop              | Gauge                   | Continuous                  | Daily**                    | Annual                       | 1.5 in H2O                   |
| E13R                 | Non-process Cleaning Activities (Purge Recovery) | Waste Purge Tank           | VOC Emission Reclaimed          | Recovered Purge            | Meter                   | Monthly                     | Monthly                    | Annual                       | See Permit Limit Section B.2 |
| E13R                 | Non-process Cleaning Activities (Purge Recovery) | Virgin Purge Tank          | VOC Emission                    | Virgin Purge               | Meter (Primary)         | Monthly                     | Monthly                    | Annual                       | See Permit Limit Section B.2 |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### PAINT #2 PERIODIC MONITORING REQUIREMENTS

| Emission Unit | Operation               | Equipment Monitored            | Characteristic Monitored | Parameter Monitored                    | Method or Device            | Monitoring Frequency | Recording Frequency                      | Calibration Frequency | Standard Range   |
|---------------|-------------------------|--------------------------------|--------------------------|--|-----------------------------|----------------------|--|-----------------------|--|
| F02           | Electrodeposition -Oven | Oven Stacks                    | Electro coat Emissions   | Opacity                                | Visual                      | Refer to Section B.4 | Refer to Section B.4                     | N/A                   | < 20 Percent   |
| F02           | Electrodeposition -Oven | Thermal Oxidizer (TT02)        | Destruction Efficiency   | Combustion Chamber Temperature         | Thermocouple                | Continuous***<br>**  | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit              |
| F02           | Electrodeposition -Oven | Thermal Oxidizer (TT02)        | Destruction Efficiency   | VOC In / Out                           | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 93%  |
| F04           | Sealer-Oven             | Thermal Oxidizer (TT03)        | Destruction Efficiency   | Combustion Chamber Temperature         | Thermocouple                | Continuous***<br>**  | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit              |
| F04           | Sealer-Oven             | Thermal Oxidizer (TT03)        | Destruction Efficiency   | VOC In / Out                           | Stack Test (EPA Method 25A) | Every 5 years*       | Every 5 years*                           | Each Test             | DRE ≥ 95%  |
| F05           | Primer-Booth            | VOC Concentrator System (TC01) | Collection Efficiency    | Desorption Gas Inlet Temperature       | Thermocouple                | Continuous***<br>**  | 15 Minutes                               | Annual                | Not More Than 8°C Below Desorption Gas Inlet Temperature Limit |
| F05           | Primer-Booth            | VOC Concentrator System (TC01) | Collection Efficiency    | Desorption/ Reactivation Fan Operation | Visual                      | Monthly              | Monthly                                  | N/A                   | Operating  |
| F05           | Primer-Booth            | VOC Concentrator System (TC01) | Collection Efficiency    | Revolutions Per Hour (rph)             | Stopwatch                   | Annually             | Annually                                 | N/A                   | 1.0 – 2.0 rph  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b> | <b>Equipment Monitored</b>     | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>     | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>               | <b>Calibration Frequency</b> | <b>Standard Range</b>                             |
|----------------------|------------------|--------------------------------|---------------------------------|--------------------------------|-----------------------------|-----------------------------|--|------------------------------|---|
| F05                  | Primer-Booth     | VOC Concentrator System (TC01) | Collection Efficiency           | Adsorbent Material Performance | See Section B4              | Annually                    | Annually                                 | See Section B4               | See Section B4                                    |
| F05                  | Primer-Booth     | VOC Concentrator System (TC01) | Collection Efficiency           | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | Collection Efficiency $\geq$ 85%                  |
| F05                  | Primer-Booth     | VOC Concentrator System (TC01) | Collection Efficiency           | Wheel Rotation                 | Proximity Switch            | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | No Faults   |
| F05                  | Primer-Booth     | VOC Concentrator System (TC01) | Incinerator Collection          | By-Pass Damper Position        | Alarm                       | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | No Faults   |
| F05                  | Primer-Booth     | Thermal Oxidizer (TT10)        | Destruction Efficiency          | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**         | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |
| F05                  | Primer-Booth     | Thermal Oxidizer (TT10)        | Destruction Efficiency          | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | DRE $\geq$ 95%                                    |
| F05                  | Primer-Booth     | Booth Scrubber (TS19)          | PM Removal Efficiency           | Gaps at Venturi                | Visual                      | Weekly                      | Weekly                                   | N/A                          | No Significant Gaps                               |
| F05                  | Primer-Booth     | Booth Exhaust                  | Emission Rate                   | Particulate Emission           | Stack Test (EPA Method 17)  | Every 5 Years*              | Every 5 Years*                           | Each Test                    | See Section B.2                                   |
| F05                  | Primer-Oven      | Thermal Oxidizer (TT05)        | Destruction Efficiency          | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**         | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>       | <b>Equipment Monitored</b>                 | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>            | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b> | <b>Calibration Frequency</b> | <b>Standard Range</b>  |
|----------------------|------------------------|--|---------------------------------|---------------------------------------|-----------------------------|-----------------------------|----------------------------|------------------------------|--|
| F05                  | Primer-Oven            | Thermal Oxidizer (TT05)                    | Destruction Efficiency          | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*             | Each Test                    | DRE $\geq$ 95%   |
| F07                  | Topcoat Booths (A & B) | Exhaust Filters (Final Stage) (TF27, TF28) | PM Removal Efficiency           | Pressure Drop                         | Gauge                       | Weekly                      | Weekly                     | Annual                       | 0 - 2 in. H <sub>2</sub> O                                     |
| F07                  | Topcoat Booths (A & B) | Exhaust Filters (Final Stage) (TF27, TF28) | PM Removal Efficiency           | All Final Filters In Place            | Visual                      | Monthly                     | Monthly                    | N/A                          | No Visible By-Pass   |
| F07                  | Topcoat Booths (A & B) | Booth Scrubber (TS23, TS24)                | PM Removal Efficiency           | Gaps at Venturi                       | Visual                      | Weekly                      | Weekly                     | N/A                          | No Significant Gaps  |
| F07                  | Topcoat Booths (A & B) | Booth Exhaust                              | Emission Rate                   | Particulate Emission                  | Stack Test (EPA Method 17)  | Every 5 Years*              | Every 5 Years*             | Each Test                    | See Section B.2  |
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)       | Collection Efficiency           | Desorption Gas Inlet Temperature      | Thermocouple                | Continuous***<br>**         | 15 Minutes                 | Annual                       | Not More Than 8°C Below Desorption Gas Inlet Temperature Limit |
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)       | Collection Efficiency           | Desorption/Reactivation Fan Operation | Visual                      | Monthly                     | Monthly                    | N/A                          | Operating  |
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)       | Collection Efficiency           | Revolutions Per Hour (rph)            | Stopwatch                   | Annually                    | Annually                   | N/A                          | 2.0 – 3.5 rph  |
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)       | Collection Efficiency           | Adsorbent Material Performance        | See Section B.4             | Annually                    | Annually                   | See Section B.4              | See Section B.4  |



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>       | <b>Equipment Monitored</b>                            | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>     | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>               | <b>Calibration Frequency</b> | <b>Standard Range</b>                             |
|----------------------|------------------------|---|---------------------------------|--------------------------------|-----------------------------|-----------------------------|--|------------------------------|---|
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)                  | Collection Efficiency           | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | Collection Efficiency $\geq$ 85%                  |
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)                  | Collection Efficiency           | Wheel Rotation                 | Proximity Switch            | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | No Faults   |
| F07                  | Topcoat Booths (A & B) | VOC Concentrator System (TC02, TC03)                  | Incinerator Collection          | By-Pass Damper Position        | Alarm                       | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | No Faults   |
| F07                  | Topcoat Booths (A & B) | Thermal Oxidizer RTO-03 (Back-up TT06, TT08)<br>***** | Destruction Efficiency          | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**         | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |
| F07                  | Topcoat Booths (A & B) | Thermal Oxidizer RTO-03 (Back-up TT06, TT08)<br>***** | Destruction Efficiency          | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | DRE $\geq$ 95%                                    |
| F07                  | Topcoat Ovens (A & B)  | Thermal Oxidizer (TT07, TT09)                         | Destruction Efficiency          | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**         | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |
| F07                  | Topcoat Ovens (A & B)  | Thermal Oxidizer (TT07, TT09)                         | Destruction Efficiency          | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | DRE $\geq$ 95%                                    |
| F09                  | Blackout Coating       | Exhaust Filters (Final Stage) (TF12)                  | PM Removal Efficiency           | All Final Filters In Place     | Visual Inspection           | Monthly                     | Monthly                                  | N/A                          | No Visible By-Pass                                |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>                                 | <b>Equipment Monitored</b>           | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>     | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>               | <b>Calibration Frequency</b> | <b>Standard Range</b>                             |
|----------------------|--|--------------------------------------|---------------------------------|--------------------------------|-----------------------------|-----------------------------|--|------------------------------|---|
| F09                  | Blackout Coating                                 | Exhaust Filters (Final stage) (TF12) | PM Removal Efficiency           | Pressure Drop                  | Gauge                       | Continuous                  | Daily**                                  | Annual                       | 0 – 0.7 in. H <sub>2</sub> O                      |
| F13 & F25            | Non-process Cleaning Activities (Purge Supply)   | Virgin WB Purge Tank                 | VOC Emission                    | Virgin WB Purge                | Manual                      | Monthly                     | Monthly                                  | Annual                       | See Permit Limit Section B.2                      |
| F13 & F25            | Non-process Cleaning Activities (Purge Recovery) | Waste SB Purge Tank                  | VOC Emission Reclaimed          | Recovered SB Purge             | Meter (Primary)             | Monthly                     | Monthly                                  | Annual                       | See Permit Limit Section B.2                      |
| F13 & F25            | Non-process Cleaning Activities (Purge Supply)   | Virgin SB Purge Tank                 | VOC Emission                    | Virgin SB Purge                | Meter (Primary)             | Monthly                     | Monthly                                  | Annual                       | See Permit Limit Section B.2                      |
| F19                  | Electrodeposition Oven                           | Thermal Oxidizer (TT12)              | Destruction Efficiency          | Combustion Chamber Temperature | Thermocouple                | Continuous***               | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |
| F19                  | Electrodeposition Oven                           | Thermal Oxidizer (TT12)              | Destruction Efficiency          | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | DRE ≥ 90%   |
| F20                  | Sealer-Oven                                      | Thermal Oxidizer (TT03)              | Destruction Efficiency          | Combustion Chamber Temperature | Thermocouple                | Continuous***               | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |
| F20                  | Sealer-Oven                                      | Thermal Oxidizer (TT03)              | Destruction Efficiency          | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 year*               | Every 5 year*                            | Each Test                    | DRE ≥ 90%   |
| F21                  | Primer-Booth                                     | Booth Scrubber (TS27)                | PM Removal Efficiency           | Gaps at Venturi                | Visual                      | Weekly                      | Weekly                                   | N/A                          | No Significant Gaps                               |
| F21                  | Primer-Booth                                     | Booth Scrubber (TS27)                | Control Efficiency              | Particulate Emission           | Stack Test (EPA Method 17)  | Every 5 Years*              | Every 5 Years*                           | Each Test                    | See Section D.4                                   |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>            | <b>Equipment Monitored</b>     | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>            | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>               | <b>Calibration Frequency</b> | <b>Standard Range</b>   |
|----------------------|-----------------------------|--------------------------------|---------------------------------|---------------------------------------|-----------------------------|-----------------------------|--|------------------------------|---|
| F21                  | Primer-Booth Automatic Zone | VOC Concentrator System (TC05) | Collection Efficiency           | Desorption Gas Inlet Temperature      | Thermocouple                | Continuous***<br>**         | 15 Minutes                               | Annual                       | Not More Than 8°C<br>Below Desorption Gas Inlet Temperature Limit |
| F21                  | Primer-Booth Automatic Zone | VOC Concentrator System (TC05) | Collection Efficiency           | Desorption/Reactivation Fan Operation | Air Flow Monitor            | Continuous                  | Each Occurrence of an Alarm              | Annual                       | 2100-2800 FPM   |
| F21                  | Primer-Booth Automatic Zone | VOC Concentrator System (TC05) | Collection Efficiency           | Adsorbent Material Performance        | See Section B.4             | Annually                    | Annually                                 | See Section B.4              | See Section B.4   |
| F21                  | Primer-Booth Automatic Zone | VOC Concentrator System (TC05) | Collection Efficiency           | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | Collection Efficiency ≥ 85%                                       |
| F21                  | Primer-Booth Automatic Zone | VOC Concentrator System (TC05) | Collection Efficiency           | Adsorber Pressure Drop Across Trays   | Pressure Sensor             | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | >0.7 in. H <sub>2</sub> O   |
| F21                  | Primer-Booth Automatic Zone | VOC Concentrator System (TC05) | Incinerator Collection          | By-Pass Damper Position               | Alarm                       | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | No Faults   |
| F21                  | Primer-Booth Automatic Zone | Thermal Oxidizer (TT14)        | Destruction Efficiency          | Combustion Chamber Temperature        | Thermocouple                | Continuous***<br>**         | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C<br>Below Combustion Chamber Limit              |
| F21                  | Primer-Booth Automatic Zone | Thermal Oxidizer (TT14)        | Destruction Efficiency          | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | DRE ≥ 95%   |
| F21                  | Primer-Oven                 | Thermal Oxidizer (TT15)        | Destruction Efficiency          | Combustion Chamber Temperature        | Thermocouple                | Continuous***<br>**         | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 28°C<br>Below Combustion Chamber Limit              |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>                          | <b>Equipment Monitored</b>     | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>            | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>  | <b>Calibration Frequency</b> | <b>Standard Range</b>  |
|----------------------|---|--------------------------------|---------------------------------|---------------------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|--|
| F21                  | Primer-Oven                               | Thermal Oxidizer (TT15)        | Destruction Efficiency          | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*              | Each Test                    | DRE $\geq$ 95%   |
| F22/F21              | Topcoat/Primer Booths                     | Booth Scrubber (TS25)          | PM Removal Efficiency           | Gaps at Venturi                       | Visual                      | Weekly                      | Weekly                      | N/A                          | No Significant Gaps  |
| F22/F21              | Topcoat/Primer Booths                     | Booth Scrubber (TS25)          | Control Efficiency              | Particulate Emission                  | Stack Test (EPA Method 17)  | Every 5 Years*              | Every 5 Years*              | Each Test                    | See Section D.4  |
| F22/F21              | Topcoat – Clearcoat/Primer Automatic Zone | VOC Concentrator System (TC04) | Collection Efficiency           | Desorption Gas Inlet Temperature      | Thermocouple                | Continuous***               | 15 Minutes                  | Annual                       | Not More Than 8°C Below Desorption Gas Inlet Temperature Limit |
| F22/F21              | Topcoat – Clearcoat/Primer Automatic Zone | VOC Concentrator System (TC04) | Collection Efficiency           | Desorption/Reactivation Fan Operation | Visual                      | Monthly                     | Monthly                     | N/A                          | Operating  |
| F22/F21              | Topcoat – Clearcoat/Primer Automatic Zone | VOC Concentrator System (TC04) | Collection Efficiency           | Adsorbent Material Performance        | See Section B.4             | Annually                    | Annually                    | See Section B.4              | See Section B.4  |
| F22/F21              | Topcoat – Clearcoat/Primer Automatic Zone | VOC Concentrator System (TC04) | Collection Efficiency           | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*              | Each Test                    | Collection Efficiency $\geq$ 85%                               |
| F22/F21              | Topcoat – Clearcoat/Primer Automatic Zone | VOC Concentrator System (TC04) | Collection Efficiency           | Adsorber Pressure Drop Across Trays   | Pressure Sensor             | Continuous                  | Each Occurrence of an Alarm | Annual Confirm               | > 0.7 in. H <sub>2</sub> O                                     |
| F22/F21              | Topcoat – Clearcoat/Primer Automatic Zone | VOC Concentrator System (TC04) | Incinerator Collection          | By-Pass Damper Position               | Alarm                       | Continuous                  | Each Occurrence of an Alarm | Annual Confirm               | No Faults  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| Emission Unit | Operation                                 | Equipment Monitored     | Characteristic Monitored | Parameter Monitored            | Method or Device            | Monitoring Frequency | Recording Frequency                      | Calibration Frequency | Standard Range                                    |
|---------------|---|-------------------------|--------------------------|--------------------------------|-----------------------------|----------------------|--|-----------------------|---|
| F22/F21       | Topcoat – Clearcoat/Primer Automatic Zone | Thermal Oxidizer (TT13) | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**  | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit |
| F22/F21       | Topcoat – Clearcoat/Primer Automatic Zone | Thermal Oxidizer (TT13) | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 95%   |
| F22/F21       | Topcoat Oven & Primer Oven                | Thermal Oxidizer (TT11) | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**  | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit |
| F22/F21       | Topcoat Oven & Primer Oven                | Thermal Oxidizer (TT11) | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 95%   |

**Alternate Operating Scenario for Emission Unit F21 Primer Booth:**

If Thermal Oxidizer (TT14) is utilized to control emissions from Emission Unit F21 Primer Booth instead of VOC Concentrator (TC05)/Thermal Oxidizer (TT14), the permittee shall comply with period monitoring requirements listed below:

| Emission Unit | Operation                   | Equipment Monitored     | Characteristic Monitored | Parameter Monitored            | Method or Device            | Monitoring Frequency | Recording Frequency                      | Calibration Frequency | Standard Range                                    |
|---------------|-----------------------------|-------------------------|--------------------------|--------------------------------|-----------------------------|----------------------|--|-----------------------|---|
| F21           | Primer-Booth Automatic Zone | Thermal Oxidizer (TT14) | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***<br>**  | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit |
| F21           | Primer-Booth Automatic Zone | Thermal Oxidizer (TT14) | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 81%   |

\* No more than 5 years from the last performance test.

\*\*\*“Daily” means TMMK production day; A TMMK production day consists of both first and second shifts. F09 Blackout manual booth used as back-up only, daily pressure drop monitoring for exhaust filters applicable only when manual booth is in use.

\*\*\*\*\* “Continuous” means at least one (1) reading every 15 minutes

\*\*\*\*\* If this back-up control device operates for more than 30 consecutive days TMMK shall perform a performance test within 90 days.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### PLASTICS - PERIODIC MONITORING REQUIREMENTS

| Emission Unit | Operation  | Equipment Monitored                              | Characteristic Monitored | Parameter Monitored            | Method Device               | or Monitoring Frequency | Recording Frequency                  | Calibration Frequency | Standard Range                                    |
|---------------|--|--|--------------------------|--------------------------------|-----------------------------|-------------------------|--------------------------------------|-----------------------|---|
| G13           | Slush Mold                                       | Fluidized Bed Filters (RF01, RF02, RF03, RF04)   | PM Removal Efficiency    | Press Drop                     | Gauge                       | Weekly                  | Weekly                               | Annual                | 0 – 5 in. H <sub>2</sub> O                        |
| G19/G27       | Non-process Cleaning Activities (Purge Recovery) | Solventborne Waste Purge Tank (Line 1, 2 and 3)  | VOC Emission Credit      | Recovered Purge                | Meter                       | Monthly                 | Monthly                              | Annual                | See Permit Limit Section B.2                      |
| G19/G27       | Non-process Cleaning Activities (Purge Usage)    | Solventborne Virgin Purge Tank (Line 1, 2 and 3) | VOC Emission             | Virgin Purge                   | Meter                       | Monthly                 | Monthly                              | Annual                | See Permit Limit Section B.2                      |
| G19           | Non-process Cleaning Activities (Purge Usage)    | Solventborne Virgin Purge Tank (Injection Parts) | VOC Emission             | Virgin Purge                   | Meter                       | Monthly                 | Monthly                              | Annual                | See Permit Limit Section B.2                      |
| G21           | Ext Part Paint Booth B1                          | Exhaust Filters (RF14)                           | PM Removal Efficiency    | All Final Filters In Place     | Visual Inspection           | Monthly                 | Monthly                              | N/A                   | No Visible By-Pass                                |
| G21           | Ext Part Paint Booth B1                          | Exhaust Filters (RF14)                           | PM Removal Efficiency    | Press Drop                     | Gauge                       | Continuous              | Weekly                               | Annual                | 0 – 1 in. H <sub>2</sub> O                        |
| G21           | Ext Part Paint Booth B1                          | Booth Scrubbers (RS16)                           | PM Removal Efficiency    | Water Flow                     | Flow Meter                  | Continuous              | Hourly & Each occurrence of an alarm | Annual                | 37 - 53 gpm                                       |
| G21           | Ext Part Paint Booth B1                          | Booth Exhaust                                    | PM Emission Rate         | Particulate Emission           | Stack Test (EPA Method 17)  | Every 5 years*          | Every 5 years*                       | Each Test             | See Section B.2                                   |
| G21           | Ext Part Paint Booth B1                          | Thermal Oxidizers (RT11)                         | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*          | Every 5 Years*                       | Each Test             | DRE ≥ 95%   |
| G21           | Ext Part Paint Booth B1                          | Thermal Oxidizers (RT11)                         | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***           | 15 Minutes                           | Annual                | Not More Than 28°C Below Combustion Chamber Limit |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>          | <b>Equipment Monitored</b>     | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>            | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>               | <b>Calibration Frequency</b> | <b>Standard Range</b>  |
|----------------------|---------------------------|--------------------------------|---------------------------------|---------------------------------------|-----------------------------|-----------------------------|--|------------------------------|--|
| G21                  | Ext Part Paint Booth B1   | VOC Concentrator System (RC07) | Collection Efficiency           | Desorption Gas Inlet Temperature      | Thermocouple                | Continuous***               | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 8°C Below Desorption Gas Inlet Temperature Limit |
| G21                  | Ext Part Paint Booth B1   | VOC Concentrator System (RC07) | Collection Efficiency           | Desorption/Reactivation Fan Operation | Visual                      | Monthly                     | Monthly                                  | N/A                          | Operating  |
| G21                  | Ext Part Paint Booth B1   | VOC Concentrator System (RC07) | Collection Efficiency           | Adsorbent Material Performance        | See Section B.4             | Annually                    | Annually                                 | See Section B.4              | See Section B.4  |
| G21                  | Ext Part Paint Booth B1   | VOC Concentrator System (RC07) | Collection Efficiency           | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | Collection Efficiency ≥ 85%                                    |
| G21                  | Ext Part Paint Booth B1   | VOC Concentrator System (RC07) | Collection Efficiency           | By-Pass Damper Position               | Alarm                       | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | No Faults  |
| G21                  | Ext Part Paint Booth B1   | VOC Concentrator System (RC07) | Collection Efficiency           | Pressure Drop Across Carbon           | Pressure Sensor             | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | 0.25-3.0 in H2O  |
| G22                  | Bumper Paint Booths (G,H) | Booth Scrubbers (RS14, RS15)   | PM Removal Efficiency           | Water Flow                            | Flow Meter                  | Continuous                  | Hourly & Each occurrence of an alarm     | Annual                       | 20 – 44 GPM  |
| G22                  | Bumper Paint Booths (G,H) | Booth Exhaust                  | Emission Rate                   | Particulate Emission                  | Stack Test (EPA Method 17)  | Every 5 Years*              | Every 5 Years*                           | Each Test                    | See Section B.2  |
| G22                  | Bumper Paint Booths (G,H) | Thermal Oxidizers (RT12)       | Destruction Efficiency          | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years*              | Every 5 Years*                           | Each Test                    | Control Efficiency ≥ 81%                                       |
| G22                  | Bumper Paint Booths (G,H) | Thermal Oxidizers (RT12)       | Destruction Efficiency          | Combustion Chamber Temperature        | Thermocouple                | Continuous***               | 15 Minutes                               | Annual                       | Not More Than 28°C Below Combustion Chamber Limit              |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

| Emission Unit | Operation                      | Equipment Monitored                | Characteristic Monitored | Parameter Monitored            | Method Device or            | Monitoring Frequency | Recording Frequency | Calibration Frequency | Standard Range                                    |
|---------------|--------------------------------|------------------------------------|--------------------------|--------------------------------|-----------------------------|----------------------|---------------------|-----------------------|---|
| G26           | Bumper and Rocker Paint Booths | Exhaust Filters (RF11, RF12, RF13) | PM Removal Efficiency    | Press Drop                     | Gauge                       | Continuous           | Weekly              | Annual                | 0 – 1.1 in. H <sub>2</sub> O                      |
| G26           | Bumper and Rocker Paint Booths | Exhaust Filters (RF11, RF12, RF13) | PM Removal Efficiency    | All Filters In Place           | Visual Inspection           | Monthly              | Monthly             | N/A                   | No Visible By-Pass                                |
| G26           | Bumper and Rocker Paint Booths | Booth Scrubbers (RS13)             | PM Removal Efficiency    | Gaps at Venturi                | Visual Inspection           | Weekly               | Weekly              | N/A                   | No Significant Gaps                               |
| G26           | Bumper and Rocker Paint Booths | Booth Exhaust                      | Control Efficiency       | Particulate Emission           | Stack Test (EPA Method 17)  | Every 5 Years*       | Every 5 Years*      | Each Test             | See Section D.4                                   |
| G26           | Bumper and Rocker Paint Booths | Thermal Oxidizer (RT12)            | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*      | Each Test             | Control Efficiency ≥ 81%                          |
| G26           | Bumper and Rocker Paint Booths | Thermal Oxidizer (RT12)            | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***        | 15 Minutes          | Annual                | Not More Than 28°C Below Combustion Chamber Limit |

\* No more than 5 years from the last performance test.

\*\*“Daily” means TMMK production day; A TMMK production day consists of both first and second shifts.

\*\*\* “Continuous” means at least one (1) reading every 15 minutes

### **Alternate Operating Scenario for Emission Units G22 and G26 Bumper Paint Booths VOC Control Equipment:**

If Thermal Oxidizers (RT07-10) and Concentrators (RC03-06) are utilized to control emissions from Emission Unit G22 and G26 Bumper Paint Booths instead of Thermal Oxidizer (RT12), the permittee shall comply with period monitoring requirements listed below:

| Emission Unit | Operation                 | Equipment Monitored            | Characteristic Monitored | Parameter Monitored | Method Device or            | Monitoring Frequency | Recording Frequency | Calibration Frequency | Standard Range |
|---------------|---------------------------|--------------------------------|--------------------------|---------------------|-----------------------------|----------------------|---------------------|-----------------------|----------------|
| G22           | Bumper Paint Booths (G,H) | Thermal Oxidizers (RT08, RT09) | Destruction Efficiency   | VOC In / Out        | Stack Test (EPA Method 25A) | Every 5 Years****    | Every 5 Years****   | Each Test             | DRE ≥ 95%      |



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>               | <b>Equipment Monitored</b>           | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>            | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>               | <b>Calibration Frequency</b> | <b>Standard Range</b>  |
|----------------------|--------------------------------|--------------------------------------|---------------------------------|---------------------------------------|-----------------------------|-----------------------------|--|------------------------------|--|
| G22                  | Bumper Paint Booths (G,H)      | Thermal Oxidizers (RT08, RT09)       | Destruction Efficiency          | Combustion Chamber Temperature        | Thermocouple                | Continuous***               | 15 Minutes                               | Annual                       | Not More Than 28°C Below Combustion Chamber Limit              |
| G22                  | Bumper Paint Booths (G,H)      | VOC Concentrator System (RC04, RC05) | Collection Efficiency           | Desorption Gas Inlet Temperature      | Thermocouple                | Continuous***               | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 8°C Below Desorption Gas Inlet Temperature Limit |
| G22                  | Bumper Paint Booths (G,H)      | VOC Concentrator System (RC04, RC05) | Collection Efficiency           | Desorption/Reactivation Fan Operation | Visual Inspection           | Monthly                     | Monthly                                  | N/A                          | Operating  |
| G22                  | Bumper Paint Booths (G,H)      | VOC Concentrator System (RC04, RC05) | Collection Efficiency           | Adsorbent Material Performance        | See Section B.4             | Annually                    | Annually                                 | See Section B.4              | See Section B.4  |
| G22                  | Bumper Paint Booths (G,H)      | VOC Concentrator System (RC04, RC05) | Collection Efficiency           | VOC In / Out                          | Stack Test (EPA Method 25A) | Every 5 Years****           | Every 5 Years****                        | Each Test                    | Collection Efficiency ≥ 85%                                    |
| G22                  | Bumper Paint Booths (G,H)      | VOC Concentrator System (RC04, RC05) | Collection Efficiency           | Adsorber Pressure Drop Across Trays   | Pressure Sensor             | Continuous                  | Each Occurrence of an Alarm              | Annual Confirm               | > 0.5 in. H <sub>2</sub> O                                     |
| G26                  | Bumper and Rocker Paint Booths | Booth Exhaust                        | Control Efficiency              | Particulate Emission                  | Stack Test (EPA Method 17)  | Every 5 Years****           | Every 5 Years****                        | Each Test                    | See Section D.4  |
| G26                  | Bumper and Rocker Paint Booths | VOC Concentrator System (RC03, RC06) | Collection Efficiency           | Desorption Gas Inlet Temperature      | Thermocouple                | Continuous***               | 15 Minutes & Each Occurrence of an Alarm | Annual                       | Not More Than 8°C Below Desorption Gas Inlet Temperature Limit |
| G26                  | Bumper and Rocker Paint Booths | VOC Concentrator System (RC03, RC06) | Collection Efficiency           | Desorption/Reactivation Fan Operation | Visual Inspection           | Monthly                     | Monthly                                  | N/A                          | Operating  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| <b>Emission Unit</b> | <b>Operation</b>               | <b>Equipment Monitored</b>           | <b>Characteristic Monitored</b> | <b>Parameter Monitored</b>          | <b>Method or Device</b>     | <b>Monitoring Frequency</b> | <b>Recording Frequency</b>  | <b>Calibration Frequency</b> | <b>Standard Range</b>                             |
|----------------------|--------------------------------|--------------------------------------|---------------------------------|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|---|
| G26                  | Bumper and Rocker Paint Booths | VOC Concentrator System (RC03, RC06) | Collection Efficiency           | Adsorbent Material Performance      | See Section B.4             | Annually                    | Annually                    | See Section B.4              | See Section B.4                                   |
| G26                  | Bumper and Rocker Paint Booths | VOC Concentrator System (RC03, RC06) | Collection Efficiency           | VOC In / Out                        | Stack Test (EPA Method 25A) | Every 5 Years****           | Every 5 Years****           | Each Test                    | Collection Efficiency $\geq 85\%$                 |
| G26                  | Bumper and Rocker Paint Booths | VOC Concentrator System (RC03, RC06) | Collection Efficiency           | Adsorber Pressure Drop Across Trays | Pressure Sensor             | Continuous                  | Each Occurrence of an Alarm | Annual Confirm               | $> 0.5$ in. H <sub>2</sub> O                      |
| G26                  | Bumper and Rocker Paint Booths | VOC Concentrator System (RC03)       | Incinerator Collection          | By-Pass Damper Position             | Alarm                       | Continuous                  | Each Occurrence of an Alarm | Annual Confirm               | No Faults   |
| G26                  | Bumper and Rocker Paint Booths | Thermal Oxidizer (RT07, RT10)        | Destruction Efficiency          | VOC In / Out                        | Stack Test (EPA Method 25A) | Every 5 Years****           | Every 5 Years****           | Each Test                    | DRE $\geq 95\%$                                   |
| G26                  | Bumper and Rocker Paint Booths | Thermal Oxidizer (RT07, RT10)        | Destruction Efficiency          | Combustion Chamber Temperature      | Thermocouple                | Continuous***               | 15 Minutes                  | Annual                       | Not More Than 28°C Below Combustion Chamber Limit |

\*\*\*“Daily” means TMMK production day; A TMMK production day consists of both first and second shifts.

\*\*\* “Continuous” means at least one (1) reading every 15 minutes

\*\*\*\* If either of the back-up control devices operates for more than 30 consecutive days TMMK shall perform a performance test on the operated device within 90 days.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE  
REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**POWERTRAIN**

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Description and Applicable Regulations:

401 KAR 59:010 and 401 KAR 51:017 apply to all affected facilities listed in the following table.

**POWERTRAIN, 800 BUILDING,** Operations include the following processes

| EMISSION UNIT | OPERATION  | CONSTRUCTION COMMENCED   | CONTROL EQUIPMENT                                       | OTHER APPLICABLE REGULATIONS     |
|---------------|--|--|---|----------------------------------|
| H01           | All Cutting Operations<br>Engine Lines                                   | 1988-1999<br>1988-1999<br>2007, 2015<br>2022<br>Modified June 2023 | Filters for PM<br>(MZY 1110-1,2)<br>HVAC Filters for PM |                                  |
| H02           | Coating Application, including hub and shaft                             | 1988-1999  | None  | 401 KAR 63:002                   |
| H03           | All Honing Operations<br>Engine Lines                                    | 1988-1999<br>2015<br>2007<br>2022                                  | All Other - HVAC Filters for PM                         |                                  |
| H04           | All Grinding Operations<br>Engine Lines                                  | 1988-1999<br>2007, 2015<br>2022<br>Modified June 2023              | HVAC Filters for PM                                     |                                  |
| H05           | Non Process Solvent Cleaning Operations, including, CIPG and other areas | 1988-2013  | None  | 401 KAR 59:185<br>401 KAR 63:002 |
| H06           | Corrosion Inhibitor Application  | 1988-2013  | None  | 401 KAR 63:002                   |
| H07           | Source Removed   | 1988   | None  |                                  |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION                                     | CONSTRUCTION COMMENCED                      | CONTROL EQUIPMENT   | OTHER APPLICABLE REGULATIONS |
|---------------|---|---|---|------------------------------|
| H08           | Quenching<br>Engine Lines                     | 1988-1999<br>1988, 2015<br>2007<br>2022     | HVAC Filters for PM   |                              |
| H09           | Washing                                       | 1988, 2015<br>Modified June 2023            | HVAC Filters for PM   |                              |
| H10           | Gasket Installation<br>Engine Lines           | 1988-1999, 2015<br>2015<br>2007<br>2022     | None  | 401 KAR 63:002               |
| H11           | Raw Material Storage / Supply<br>Engine Lines | 1988-1993<br>1988-2013<br>2007-2008<br>2022 | Gasoline Tanks – Conservation Vent for breathing losses, vapor balancing for working losses<br>Two 10,000 gallon engine oil storage tanks are included (OT-08). | 401 KAR 59:050 for OT-08     |
| H12           | Sub-Assembly and Final Engine Testing         |   |   |                              |
| H12-01        | Fuel Day Tanks                                |   |   |                              |
| H12-02        | LLC Coolant Fluid Filing                      |   |   |                              |
| H12-03        | L4 Area: Loaded Dynamometer Test (4) Cells    | 1988, 2015                                  | CC System for each cell   | 40 CFR 64                    |
| H12-06        | V6 Area: Loaded Dynamometer Test (3) Cells    |   | CC System for each cell   |                              |
| H12-04        | L4 Area: Up/Down Test Cells                   | 1988, 2015                                  |   | 40 CFR 64                    |
| H12-07        | V6 Area: Up/Down Test Cells                   | 2007-2008, 2015                             |   |                              |
| H12-05        | L4 Area: Hot Testing                          | 2022  |   |                              |
| H12-08        | V6 Area: Hot Testing                          |   |   |                              |

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

| EMISSION UNIT | OPERATION   | CONSTRUCTION COMMENCED                         | CONTROL EQUIPMENT  | OTHER APPLICABLE REGULATIONS |
|---------------|---|--|--|------------------------------|
| H13           | Operational Support, including material supply systems, scrap material handling, tool regrind and maintenance machining (Insignificant Activities List) | 1988, 2015                                     | None   |                              |
| H14           | Block Impregnation  | Oct-98<br>2015                                 | None   | 401 KAR 63:002               |
| H15/H15b      | Process Lubrication Activities (Building 800 for H15, Building 200 for H15b)  | 1988, 2015                                     | None   |                              |
| H16           | Process Cleaning Operations<br>Engine Lines   | 1988, 2015<br>1988, 2019<br>2007, 2018<br>2022 | L4 & L4-2 Line – Laser Cladding<br>Process Cleaning – Thermal Oxidizer<br>KT01 for VOC ( <i>KT01 will be removed<br/>December 2023</i> ) | 401 KAR 63:002               |
| H17           | Final Assembly Operations   | 1988, 2015,<br>2022                            | None   |                              |

## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **APPLICABLE REGULATIONS:**

**401 KAR 51:017**, *Prevention of significant deterioration of air quality*

**401 KAR 59:010**, *New Process Operations*

**401 KAR 59:050**, *New storage vessels for petroleum liquids*

**401 KAR 59:185**, *New solvent metal cleaning equipment*

**401 KAR 63:002 Section 2(4)(ooo)**, **40 C.F.R. 63.3080 to 63.3176**, **Tables 1 through 4**, and **Appendix A (Subpart IIII)**, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks* (Refer to Section B Group Requirements)

**40 CFR 64**, *Compliance Assurance Monitoring (CAM)*, (See Section E, EU H12-03 and H-06).

**401 KAR 63:002 Section 2(4)(tttt)** **40 C.F.R. 63.9280 to 63.9375**, **Tables 1 through 7 (Subpart PPPPP)**, *National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards* (Existing affected sources do not have to meet Subparts A of 40 CFR part 63 except for initial notification requirements).

### **1. Operating Limitations:**

- a. The usage rates of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in Section B.2. Refer to Section B Group Requirements for requirements specific to 40 CFR 63 Subpart IIII.
- b. Wherever practicable, the permittee shall utilize work practices to minimize emissions from non-process cleaning activities.

#### **Specific Operating Limitations for Cold Cleaner in Emission Unit H05:**

- c. The permittee shall comply with control equipment and operating requirements specified in 401 KAR 59:185, Section 4 (1) & (2). Refer to Section B Group Requirements.

#### **Specific Operating Limitations for H11 401 KAR 59:050 affected tanks:**

- d. If the storage vessel has a storage capacity greater than 2,195 liters (580 gallons), and if the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than ten and three-tenths (10.3) kPa (one and five-tenths (1.5) psia), as a minimum it shall be equipped with a permanent submerged fill pipe [401 KAR 59:050 Section 3.(2)].
- e. There shall be no visible holes, tears, or other opening in the seal, any seal fabric, shoe, or seal envelope [401 KAR 59:050 Section 4.(1)].
- f. All openings, except stub drains, automatic bleeder vents, rim space vents, and leg sleeves, shall be equipped with covers, lids, or seals such that [401 KAR 59:050 Section 4.(2)]:
  - (1) The cover, lid, or seal is in the closed position at all times (i.e., no visible gap) except when in actual use or as described in subsection (3)(f) of section 4 of 401 KAR 59:050;

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (2) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and
- (3) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

### Specific Operating Limitations for Emission Unit H12:

- g. Pursuant to 401 KAR 51:017 Section 8(3), the permittee shall install and operate whenever a dynamometer is performing a loaded test pattern in H12(03) or H12(06), the Catalytic Converter System (CC System) required to meet the BACT limitation for control of CO. The timeframe to construct and operate the CC System shall be in compliance with the compliance schedule approved by the Division.

### Compliance Demonstration Method:

See subsections **3. Testing Requirements**, **4. Specific Monitoring Requirements**, **5. Specific Recordkeeping Requirements**, and **7. Specific Control Equipment Operating Conditions**.

- h. Pursuant to **401 KAR 51:017**, the permittee shall not exceed the following limits:

| Process ID | Operation Description                  | Short-Term Operational Restrictions                             | Annual Operational Restrictions                |
|------------|--|---|--|
| H12(03)    | L4 Area: Loaded Dynamometer Test Cells | 92.4 gallons of fuel/hour<br>(Calculated as daily average)      | 170,000 gallons of fuel / 12 rolling months    |
| H12(06)    | V6 Area: Loaded Dynamometer Test Cells | 69.3 gallons of fuel/hour<br>(Calculated as daily average)      | 200,000 gallons of fuel / 12 rolling months    |
| H12(04)    | L4 Area: Up/Down Test Cell             | 1.9 gallons of fuel/hour<br>(Calculated as monthly average)     | 6,000 gallons of fuel / 12 rolling months      |
| H12(07)    | V6 Area: Up/Down Test Cell             | 1.9 gallons of fuel/hour<br>(Calculated as monthly average)     | 6,000 gallons of fuel / 12 rolling months      |
| H12(05)    | L4 Area: Hot Testing                   | 110 engines hot tested/hour<br>(Calculated as monthly average)  | 338,983 engines hot tested / 12 rolling months |
| H12(08)    | V6 Area: Hot Testing                   | 64.3 engines hot tested/hour<br>(Calculated as monthly average) | 342,466 engines hot tested / 12 rolling months |

### Compliance Demonstration Method:

- (1) See subsections **3. Testing Requirements**, **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements** for compliance with the control efficiency requirement.
- (2) **Annual Operational Restrictions**: Gallons of fuel usage, hours of operation, and numbers of engines tested shall be recorded as indicated by subsections **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****(3) Short-Term Operational Restrictions:****H12(03) and H12(06):**

Daily gallons of fuel usage and daily hours of operation shall be recorded for H12(03) and H12(06) as indicated by subsection 4. **Specific Monitoring Requirements** and subsection 5. **Specific Recordkeeping Requirements** and shall be used to calculate the hourly usage and shall be compared to the above limit.

Hourly fuel limit (gal/hr) = Daily fuel usage / Daily hours of operation

**H12(04), H12(07), H12(05) and H12(08):**

Monthly fuel usage/engines tested and monthly hours of operation shall be recorded for H12(04), H12(07), H12(05) and H12(08) as indicated by 4. **Specific Monitoring Requirements** and by 5. **Specific Recordkeeping Requirements** and shall be used to calculate the hourly usage and shall be compared to the above limit.

Hourly fuel or engines tested limit = Monthly fuel or engines tested / Monthly hours of operation

**2. Emission Limitations:**

- a. **401 KAR 59:010, Section 3 (1):** The opacity of visible emissions from each stack shall not equal or exceed 20 percent.

**Compliance Demonstration Method:**

See subsection 4. **Specific Monitoring Requirements**.

- b. **401 KAR 59:010, Section 3 (2):**

Emission of particulate matter from a control device or stack of any affected facility up to a process rate of 1000 lbs/hr shall not exceed **2.34** lbs/hr. For processing rates greater than 1000 lbs/hr up to 60,000 lbs/hr, particulate emissions shall not exceed the emission rate calculated by the following equation:

$$E = 3.59(P)^{0.62}$$

E = the PM emissions rate (pounds/hour)

P = the process rate (tons/hour)

**Compliance Demonstration Method:**

- (1) The total process weight, "P" as defined above must reflect a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period. This period shall not exceed 24 hours. In the case where there are no periodic monitoring requirements associated with the affected facility, continuous compliance shall be assured as long as there are no process or operational changes. The determination of the emission rate "E" in pounds per hour for compliance with 401 KAR 59:010 may also be used to demonstrate compliance with 401 KAR 51:017, except that the period allowed for the determination of "P" shall be one month.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(2) For affected facilities with periodic monitoring requirements for particulate emissions, the source shall demonstrate continuous compliance by adhering to the periodic monitoring requirements table. The source must maintain a record of deviations from “standard ranges” in the periodic monitoring requirements table and determine the particulate emissions from the deviation. The duration of the deviation shall be the period between when the “out of standard condition” was noted and when it is corrected. If an engineering evaluation utilizing a control efficiency is used to determine particulate emissions for the affected facility, the allowed control efficiency shall be zero during the deviation period unless testing is conducted to prove otherwise.

- c. **401 KAR 51:017:** Emissions of VOC and PM shall not exceed the following, as calculated on a monthly basis:

| EMISSION UNIT | OPERATION                       | VOC LIMIT<br>(lb/job) | PM LIMIT<br>(lb/hr) |
|---------------|---------------------------------|-----------------------|---------------------|
| H01           | Cutting Operations              | 0.13                  | N/A                 |
| H03           | Honing Operations               | 0.030                 | N/A                 |
| H04           | Grinding Operations             | 0.015                 | N/A                 |
| H05           | Non-Process Cleaning Activities | 0.031                 | N/A                 |
| H08           | Quenching Activities            | 0.016                 | N/A                 |
| ALL POINTS    | All Powertrain Operations       | N/A                   | 3.69                |

### Compliance Demonstration Method:

$$VOC\ Value = \frac{\sum U_i * V_i * E_i * (1 - C_i * F_i)}{P}$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency,

P = Production rate (total number of engines and axles assembled)

PM Value = Measurement, when prescribed by periodic monitoring requirements table.

Otherwise PM shall be calculated as follows:

$$PM\ Value = \sum \frac{P}{P_m} * E_i, \text{ or equivalent methods approved by Division,}$$

P = Average shop production throughput,

P<sub>m</sub> = Maximum vehicle production rate

E<sub>i</sub> = PM Emission Factor (controlled) for each stack “i”.

See Compliance Demonstration Method for 401 KAR 59:010, in this Section.

- d. **401 KAR 51:017:** Emissions of VOC shall not exceed 182.4 tons per year, based on a 12-month rolling total.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Compliance Demonstration Method:

$$VOC\ Value = \sum U_i * V_i * E_i * (1 - C_i * F_i)$$

U<sub>i</sub> = Usage of material “i”,

V<sub>i</sub> = Volatile organic compound (VOC) content,

E<sub>i</sub> = VOC Emission Factor,

F<sub>i</sub> = Control efficiency,

C<sub>i</sub> = Collection efficiency.

- e. **401 KAR 51:017:** Emissions of PM shall not exceed 16.1 tons per year from Powertrain Operations, based on a 12-month rolling total.

### Compliance Demonstration Method:

- (1) Calculated from the following equation, except where testing specified (see item 3)

$$PM\ Value = \sum P * E_i$$

P = Average shop production throughput

E<sub>i</sub> = PM Emission Factor (controlled) for “i”,

- (2) See Compliance Demonstration Method for 401 KAR 59:010, in this Section.

- (3) Testing, see periodic monitoring requirements table.

- f. **401 KAR 51:017:**

Emissions of CO from engine testing shall not exceed the following limits:

| EMISSION UNIT | OPERATION   | CO LIMIT based on 3-hr average (lb/hr) | Control Requirement  |
|---------------|---|--|--|
| H12 (03)      | L4 Area: Loaded Dynamometer 4 Test Cells (4 CC Systems) | 6.39 per cell                          | CC System in each cell to achieve a 96% or greater control efficiency, except during “low inlet loadings of CO*”, idle, or non-loaded test patterns. |
| H12 (06)      | V6 Area: Loaded Dynamometer 3 Test Cells (3 CC Systems) | 6.39 per cell                          | CC System in each cell to achieve a 96% or greater control efficiency, except during “low inlet loadings of CO*”, idle, or non-loaded test patterns. |
| H12 (04)      | L4 Area : Up/Down Test Cells                            | 2.07                                   | None   |
| H12 (07)      | V6 Area : Up/Down Test Cells                            | 2.07                                   | None   |
| H12 (05)      | L4 Area : Hot Testing                                   | 9.30                                   | None   |
| H12 (08)      | V6 Area : Hot Testing                                   | 6.70                                   | None   |

\* “low inlet loading of CO” refers to test patterns which generate uncontrolled CO emission rates based on a 3-hour average which are lower than the CO BACT limit of 6.39 lb/hr.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Compliance Demonstration Method:

The following equation may be used to calculate CO emissions:

CO Emission lb/hr = Emission factor of CO (lb/gal) as listed in KYEIS X consumption of fuel in gallons/hr-cell)(1-Control Efficiency of Catalytic Converter System) X number of cells

See subsections **3. Testing Requirements**, **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements** for compliance with CO emissions and control efficiency requirements.

### g. 40 CFR 63 Subpart IIII, Section 63.3091 - Emission Limits for Existing Sources

| EMISSION UNITS | NESHAP AFFECTED OPERATIONS      | EMISSION LIMIT   |
|----------------|---------------------------------|--|
| H02            | Primer-surfacer                 | Refer to Section B Group Requirements for Group Emission Limits. |
| H05            | Non-Process Cleaning            |  |
| H06            | Corrosion Inhibitor Application |  |
| H10            | Sealer and Adhesives            |  |
| H14            | Block Impregnation              |  |
| H16            | Process Cleaning Operations     |  |

### Compliance Demonstration Method:

Refer to Section B Group Requirements.

### 3. Testing Requirements:

- Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1].
- The permittee shall perform a stack test for CO each year on a representative loaded dynamometer test cell from the worst case emission scenario (H12(03) or H12(06)) using EPA Method 10. These tests shall be performed on the pattern and engine size used to establish the worst-case uncontrolled CO emission factor, which formed the basis of the CO BACT determination. The average of 3 one-hour test runs from these stack tests shall be used to assess compliance with the CO hourly BACT limit and catalyst substrate health.
- If the permittee changes the catalyst manufacturer and type, the permittee shall perform a stack test for CO on a representative loaded dynamometer test cell from H12(03) and H12(06) using EPA Method 10 to ensure compliance with 96% control efficiency. These tests shall be performed on the pattern and engine size used to establish the uncontrolled CO emission factor, which formed the basis of the CO BACT determination. The average of 3 one-hour test runs from controlled and uncontrolled stack tests shall be used to assess compliance with the control requirement of 96% and catalyst substrate health.

### 4. Specific Monitoring Requirements:

- See Section F for general monitoring requirements.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- b. The permittee shall install, operate, and maintain a device to measure the fuel usage in H12(03) and H12(06), H12(04) and H12(07).
- c. The permittee shall monitor the daily gallons of fuel usage in H12(03) and H12(06).
- d. The permittee shall monitor the monthly gallons of fuel usage in H12(03), H12(06), H12(04), H12(07).
- e. The permittee shall monitor the number of production engines per month that undergo Hot Testing in H12(05) and H12(08).
- f. The permittee shall monitor the hours of operation while engine testing is being performed for H12(04), H12(07), H12(05), and H12(08) on a monthly basis.
- g. The permittee shall monitor the hours of operation while engine testing using the CC System is being performed for H12(03), and H12(06) on a daily basis.
- h. To demonstrate compliance with the CO BACT Limits for H12(03) and H12(06), the permittee must meet the following monitoring requirements for the CC System:
  - (1) Continuous monitoring of the CC system to ensure it is operational at all times while loaded dynamometer test patterns are being performed for H12(03) and H12(06).
  - (2) The temperature in the catalyst chamber and Air to Fuel ratio (A/F) prior to the catalytic converter chamber shall be monitored continuously and recorded in at least 15-minute block averages during each specific loaded dynamometer test pattern.
  - (3) If the 15-minute block average temperature in the catalytic converter chamber exceeds the manufacturer's maximum recommended temperature specification, corrective actions shall be taken within the subsequent 45-minute period to bring the temperature below the maximum temperature, otherwise the loaded dynamometer test should cease.
  - (4) If the 15-minute block average A/F prior to the catalytic converter chamber is below 14.6, corrective actions shall be taken within the subsequent 45-minute period to bring the A/F above 14.6, otherwise the loaded dynamometer test should cease.
  - (5) Monthly monitoring of each CC System including inspections of the air supply lines, pipe network, and monitoring devices and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.
  - (6) Annual monitoring of thermocouples serving each CC System consisting of thermocouple validation checks and any subsequent accuracy audits.
  - (7) Semi-annual monitoring of the A/F sensor serving each CC System consisting of A/F validation checks and any subsequent accuracy audits.
  - (8) Monitor the number of hours each catalyst substrate is operated while performing loaded dynamometer test patterns and replace within the timeframe specified by the catalyst's manufacturer.
  - (9) Semi-annual monitoring of each catalyst converter substrate including internal visual inspection to check for leaks, channeling, abrasion, and settling. If problems are found, the permittee shall take corrective action consistent with the manufacturer's recommendations.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- i. The permittee shall conform to the monitoring requirements, as prescribed in the Periodic Monitoring Requirements table.
- j. Refer to Section B Group Requirements for requirements specific to 40 CFR 63 Subpart III.
- k. The permittee shall monitor raw material usages as necessary to demonstrate compliance with all requirements of this permit.
- l. Compliance with the opacity The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using Reference Method 9. In lieu of determining the opacity using U.S. EPA Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume).
- m. Available data on the typical Reid vapor pressure and the maximum expected storage temperatures of the stored product may be used to determine the maximum true vapor pressure as specified by the cabinet, unless the cabinet specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s) [401 KAR 59:050 Section 5.(2)].
- n. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than thirteen and eight-tenths (13.8) kPa (two and zero-tenths (2.0) psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than six and nine-tenths (6.9) kPa (one and zero-tenths (1.0) psia) [401 KAR 59:050 Section 5.(3)].
- o. The following are exempt from the requirements of section 5 of 401 KAR 59:050 [401 KAR 59:050 Section 5.(4)]:
  - (1) Each owner or operator of each storage vessel storing a petroleum liquid with a Reid vapor pressure of less than six and nine-tenths (6.9) kPa (one and zero-tenths (1.0) psia) provided the maximum true vapor pressure does not exceed six and nine-tenths (6.9) kPa (one and zero-tenths (1.0) psia).
  - (2) Each owner or operator of each storage vessel equipped with a vapor recovery and return or disposal system in accordance with the requirements of Section 3(1)(a) and (b), (3)(c) and (4) of 401 KAR 59:050.

**5. Specific Recordkeeping Requirements:**

- a. Refer to Section F.
- b. Pursuant to 401 KAR 52:020 Section 26, the permittee shall maintain records of required stack tests, corrective actions, inspections, maintenance activities, throughputs, temperatures, A/F, and operational hours shall be maintained on site.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- c. The permittee shall record the daily gallons of fuel used for the Loaded Dynamometer Test Cells in H12(03) and H12(06).
- d. The permittee shall record the monthly gallons of fuel used for the Up/Down Test Cells in H12(04) and H12(07).
- e. The permittee shall record the number of production engines per month that undergo Hot Testing in H12(05) and H12(08).
- f. The permittee shall record the 12 rolling month summation of the gallons of fuel used for the Up/Down Test Cells in H12(04) and H12(07) on a monthly basis.
- g. The permittee shall record the 12 rolling month summation for the number of production engines per hour that undergo Hot Testing in H12(05) and H12(08) on a monthly basis.
- h. The permittee shall record the hours of operation while engine testing using the CC System is being performed for H12(03), and H12(06) on a daily basis.
- i. The permittee shall record the hours of operation during engine testing for H12(04), H12(07), H12(05), and H12(08) on a monthly basis.
- j. The permittee shall record the calculated hourly gallons of fuel used for the Loaded Dynamometer Test Cells in H12(03) and H12(06) on a daily basis.
- k. The permittee shall record the calculated hourly gallons of fuel used for the Up/Down Test Cells in H12(05) and H12(08) on a monthly basis.
- l. The permittee shall record the calculated number of production engines per hour that undergo Hot Testing in H12(05) and H12(08) on a monthly basis.
- m. To show compliance with 401 KAR 51:017, the following records shall be maintained for each CC System, which are required to demonstrate continuous compliance with each operating limit and emissions limit associated with Loaded Dynamometer Engine Test Cells H12(03) and H12(06):
  - (1) Records of the date, time, and duration of each excursion when the CC System is not operational while performing loaded test patterns. Each occurrence shall be considered a deviation from permit requirements.
  - (2) The temperatures in the catalytic converter chamber and A/F prior to the catalytic converter chamber shall be recorded continuously except for limited downtime during electronic calibration.
  - (3) Tabulate and record the 15-minute blocks of catalytic converter temperature and A/F concurrently measured and recorded while the engine is operating in an electronic database or other appropriate format.
  - (4) Records of the date, time, and duration of each excursion when the 60-minute block average temperature in the catalytic converter chamber exceeds the manufacturer's

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- maximum recommended temperature specification (when the affected facilities are in use). Each occurrence shall be considered a deviation from permit requirements.
- (5) Records of the date, time, and duration of each excursion when the 60-minute block average A/F prior to the catalytic converter chamber is below 14.6 during a loaded test cell pattern. Each occurrence shall be considered a deviation from permit requirements.
  - (6) The records for the number of hours each catalyst substrate is operated while performing loaded dynamometer test patterns.
  - (7) Records of the date, time, and duration of each excursion when the number of hours for each catalyst substrate exceeds the manufacturer's recommended catalyst life when the affected facilities are performing loaded dynamometer test patterns. Each occurrence shall be considered a deviation from permit requirements.
  - (8) The design or manufacturer's specifications or equivalent document.
  - (9) The operational procedures and preventive maintenance records.
  - (10) The monthly inspection records of each CC System for the air supply lines, pipe network, and monitoring devices.
  - (11) The annual calibration records for the temperature monitoring device serving each CC System, consisting of thermocouple validation checks and any subsequent accuracy audits.
  - (12) The semi-annual calibration records for the A/F monitoring device serving each CC System, consisting of A/F sensor validation checks and any subsequent accuracy audits.
  - (13) Records of semi-annual internal visual inspection of each catalyst converter substrate.
- n. The permittee keep all periodic monitoring records associated with the Periodic Monitoring Requirements table. All periodic monitoring records shall be maintained for a period of not less than 5 years.
- o. The permittee shall maintain a log of the visual observations noting date, time, initials of observers, and records of corrective actions taken as a result of visible emissions from a stack and records of any Reference Method 9 readings performed.
- p. The permittee shall keep calendar month records of usage of all applicable raw materials and fuel usage. Following the end of each month, VOC emissions, CO emissions, PM emissions, fuel usage, and engines hot tested shall be calculated on a twelve-month rolling basis and recorded. Following the end of each month, pounds per job limits for VOC, pound per hour limits for CO, pounds per hour limits for PM, gallons of fuel usage per hour, and number of engines hot tested per hour shall be calculated and recorded. These records shall represent the most recent year and shall show compliance with VOC emissions, CO emissions, PM emissions, fuel usage, and engines hot tested limitations listed in this permit. These records shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.
- (1) Records documenting the results of each opacity reading by EPA Reference Method 9 shall be maintained.
  - (2) Records documenting the results of any required inspection and repair, as a result of a recorded opacity over 20%.



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- q. H12(03) and H12(06): The permittee shall keep calendar day records of fuel usage for the Loaded Dynamometer Test Cells. Following the end of each day, CO emissions, and fuel usage shall be calculated on an hourly average basis using the daily fuel usage and hours of operation and recorded. These records shall represent the most recent day and shall show compliance with CO emissions, and fuel usage limitations listed in this permit.
- r. These records shall be made available for inspection upon request by any duly authorized representatives of the Division for Air Quality.

**Thermal Oxidizer Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information for the thermal oxidizer:

- s. All 3-hour periods (during coating operations) during which the average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer determined during the most recent performance test which demonstrated compliance. Each occurrence shall be considered a deviation from permit requirements. See Section F.6.
- t. During all periods of operation of the thermal oxidizer in which the 3-hour average combustion chamber temperature of the thermal oxidizer is more than 28°C (50°F) below the average combustion chamber temperature of the thermal oxidizer during the most recent performance test which demonstrated compliance, or other malfunction of the thermal oxidizer, a daily log of the following information shall be kept:
  - (1) Whether any air emissions were visible from the facilities associated with the thermal oxidizer.
  - (2) Whether visible emissions were normal for the process.
  - (3) The cause of the visible emissions.
  - (4) Corrective action(s) taken shall be recorded.

**6. Specific Reporting Requirements:**

- a. See Section F for general reporting requirements.
- b. The permittee shall submit semiannual reports describing any excursions.
- c. Verification of emission rates includes the submittal of a complete report of the test results to the Division within 60 days following the last date of the tests required by subsection 3.

**Testing Requirements.**

- d. The permittee shall submit summary monitoring reports every 6 months containing monitoring information listed in Section B.4 and B.5 of this permit. Also see Section F.5 for specific reporting dates. The report shall list any “out of standard” conditions or periodic monitoring requirements, as listed in the Periodic Monitoring Requirements table. If no “out of standard” conditions occurred, the permittee shall submit a negative report.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****7. Specific Control Equipment Operating Conditions:**

- a. The control equipment listed for these emissions units shall be operated anytime the processes are operating. For HVAC filter systems, “in operation” is defined as “all filters being in place, with no emissions by-pass occurring”. All HVAC systems need not be exhausting air, while the process(es) is operating.
- b. To meet the CO BACT demonstration in a loaded dynamometer test cell, the permittee shall install and maintain the Catalytic Converter System in accordance with manufacturers’ recommendations and good engineering practice all the time when Dynamometer is operational.
- c. While performing a specific loaded test pattern, the permittee shall meet the following operating limits:  
H12-CC Catalytic Converter System (CC System): To capture emission from Emission Point H12-03 (4 Cells), and H-12-06 (3 Cells) Loaded Dynamometer Test Cells, One CC System in each cell: For each CC System,
  - (1) The 60-minute block average temperature in the catalytic converter chamber shall not exceed manufacturer's recommended specifications during a loaded test cell pattern.
  - (2) The 60-minute block average A/F prior to the catalytic converter chamber shall be above 14.6 during a loaded test cell pattern.
  - (3) The hours of operation of each catalyst substrate, where it is exposed to loaded dynamometer test patterns, does not exceed manufacturer’s recommendations or timeframe as approved by the Division.

**Compliance Demonstration Method:**

- (1) For the each CC System:
  - i. Monitoring of calibrations for monitoring devices by subsection 4. **Specific Monitoring Requirements** h.,
  - ii. Monitoring of inspections of the CC System’s components by subsection 4. **Specific Monitoring Requirements** h., and
  - iii. Monitoring A/F by subsection 4. **Specific Monitoring Requirements** h.
- (2) For each catalyst substrate used in the CC System:
  - i. Monitoring temperature in the catalytic converter chamber by 4. **Specific Monitoring Requirements** h., and
  - ii. Monitoring the number of hours each catalyst substrate is operated and annual inspections of catalyst substrate by 4. **Specific Monitoring Requirements** h.
- (3) Recordkeeping of the stack testing, temperature, A/F, operational hours, maintenance activities, inspections, etc. by subsection 5. **Recordkeeping Requirements** b. and m.
- (4) As indicated by subsection 5. **Recordkeeping Requirements** m., while performing a loaded dynamometer test pattern, records of when:
  - i. The CC System is not operating; or
  - ii. The usage of catalyst substrate exceeds the manufacturer’s specification; or
  - iii. The temperature exceeds the manufacturer’s recommended maximum specification; or
  - iv. The A/F is below 14.6.

## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **d. Specific Operating Limitations for Thermal Oxidizers:**

- (1) The average combustion chamber temperature in any 3-hour period shall not fall more than 28°C (50°F) below the combustion temperature limit established during the most recent performance test, which demonstrated compliance.
- (2) The permittee shall use the data collected during the performance test to calculate and record the average combustion temperature. This average combustion temperature is the minimum set point for the thermal oxidizer. The minimum-operating limit for thermal oxidizers is 28°C (50°F) below the minimum set point temperature.

### **Compliance Demonstration Method:**

The permittee must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. Compliance shall be demonstrated by monitoring and recording the combustion temperature as required in the Periodic Monitoring Requirements table, averaged over 3 hours.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### POWERTRAIN - PERIODIC MONITORING REQUIREMENTS

| Emission Unit             | Operation                                 | Equipment Monitored                                 | Characteristic Monitored                 | Parameter Monitored                                  | Method or Device       | Monitoring Frequency | Recording Frequency        | Calibration Frequency | Standard Range   |
|---------------------------|---|---|--|--|------------------------|----------------------|----------------------------|-----------------------|--|
| H01,H03<br>H04,H08<br>H09 | HVAC Systems (Powertrain)                 | HVAC Exhaust Filters                                | Filter Condition (PM Removal Efficiency) | Pressure Drop  | Gauge                  | Continuous           | Intermittent (Problem Log) | Annual                | No Alarms  |
| H01                       | V6 - Block                                | Filter, MZY 1110-2 (3rd stage)                      | Filter Condition (PM Removal Efficiency) | Pressure Drop  | Gauge                  | Continuous           | Daily**                    | Annual                | 0.1 – 4.0 inches H <sub>2</sub> O  |
| H01                       | V6 - Block                                | Filter, MZY 1110-1 (3rd stage)                      | Filter Condition (PM Removal Efficiency) | Pressure Drop  | Gauge                  | Continuous           | Daily**                    | Annual                | 0.1 – 4.0 inches H <sub>2</sub> O  |
| H11                       | Raw Material Storage                      | Gasoline Tanks                                      | Conservation Vents                       | Function   | Visual                 | Annual               | Annual                     | N/A                   | Functions  |
| H12(03) and (06)          | L4/V6 Area: Loaded Dyno Test Cells        | CC System   | CO Emissions (CO BACT)                   | Functioning per specifications                       | Stack Test (Method 10) | Annual               | Annual                     | Each Test             | CO emissions less than 6.4 lbs/hr/cell   |
| H12(03) and (06)          | L4/V6 Area: Loaded Dynamometer Test Cells | Catalytic Converter Substrate within each CC System | Catalytic Converter Life                 | Total hours of operation of substrate per CC.        | Monitoring the hours   | Daily                | Daily                      | N/A                   | Less than Manufacturer's Recommendation Or timeframe approved by the Division. |
| H12(03) and (06)          | L4/V6 Area: Loaded Dyno Test Cells        | Air:Fuel Sensor within each CC System               | CO Emissions (CO BACT)                   | Chamber A/F  | Sensor                 | Continuous ***       | 15 Minutes                 | Semi-Annual           | Greater than 14.6  |
| H12(03) and (06)          | L4/V6 Areas: Loaded Dyno Test Cells       | Components of each CC System                        | Capture (CO BACT)                        | Air supply lines, pipe network, & monitoring devices | Inspections            | Monthly              | Monthly                    | N/A                   | Operational  |
| H12(03) and (06)          | L4/V6 Area: Loaded Dyno Test Cells        | Catalytic Converter Substrate within each CC System | Substrate Health (CO BACT)               | Chamber Temperature                                  | Thermo-couple          | Continuous ***       | 15 Minutes                 | Annual                | Less than Manufacturer's Recommendation ****                                   |

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

| Emission Unit | Operation                       | Equipment Monitored      | Characteristic Monitored | Parameter Monitored            | Method or Device            | Monitoring Frequency | Recording Frequency                      | Calibration Frequency | Standard Range                                    |
|---------------|---------------------------------|--------------------------|--------------------------|--------------------------------|-----------------------------|----------------------|--|-----------------------|---|
| H16           | Laser Cladding Process Cleaning | Thermal Oxidizers (KT01) | Destruction Efficiency   | Combustion Chamber Temperature | Thermocouple                | Continuous***        | 15 Minutes & Each Occurrence of an Alarm | Annual                | Not More Than 28°C Below Combustion Chamber Limit |
| H16           | Laser Cladding Process Cleaning | Thermal Oxidizers (KT01) | Destruction Efficiency   | VOC In / Out                   | Stack Test (EPA Method 25A) | Every 5 Years*       | Every 5 Years*                           | Each Test             | DRE ≥ 90%   |

\* No more than 5 years from the last performance test.

\*\*“Daily” means TMMK production day; A TMMK production day consists of both first and second shifts.

\*\*\* “Continuous” means at least one (1) reading every 15 minutes.

\*\*\*\* Outlet Temperature established per manufacturer’s specifications.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Group Requirements

#### 40 CFR 60 Subpart MM Affected Sources

#### LIST of POINTS

C09- Electro deposition – Prime Coat  
 E02R, F02 & F19 - Electro deposition – Prime Coat  
 E04R, F04 & F20 – Sealer – Guide Coat  
 E05R, F05 & F21 - Soft Chip, Interior, Exterior – Guide Coat  
 E12R, F12 & F24 – Repair – Guide Coat  
 E05R & F05 – Door sash and Rocker Panel Black - Topcoat  
 E07R, F07 & F22 - Topcoat Solid, Base, Clear - Topcoat  
 E09R & F09 – Blackouts - Topcoat  
 E12R, F12 & F24 – Repair - Topcoat

### APPLICABLE REGULATIONS:

**401 KAR 60:005 Section 2(2)(tt) 40 C.F.R. 60.390 to 60.398 (Subpart MM), *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations***

#### 1. Operating Limitations:

The usage rates of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in Section B.2.

#### 2. Emission Limitations:

- a. On and after the date on which the initial performance test required by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of 40 CFR 60 subpart MM shall discharge or cause the discharge into the atmosphere from any affected facility VOC emissions in excess of:

- (1) Prime Coat Operation.

- i. For each EDP prime coat operation:

- A. 0.17 kilogram of VOC per liter of applied coating solids when the Solids Turnover Ratio ( $R_T$ ) is 0.16 or greater [40 CFR 60.392(a)(1)(i)].
      - B.  $0.17 \times 350 (0.160 - R_T)$  kg of VOC per liter of applied coating solids when  $R_T$  is greater than or equal to 0.040 and less than 0.160 [40 CFR 60.392(a)(1)(ii)].
      - C. When  $R_T$  is less than 0.040, there is no emission limit [40 CFR 60.392(a)(1)(iii)].

$$R_T = \frac{L_s}{L_g} \text{ truncated after 3 decimal places}$$

Where;

$L_s$  = volume of solids in coatings consumed (liters),  
 $L_E$  = the total volume of the EDP system (liters),

- ii. For each nonelectrodeposition prime coat operation: 0.17 kilogram of VOC per liter of applied coating solids [40 CFR 60.392(a)(2)].

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (2) 1.40 kilograms of VOC per liter of applied coating solids from each guide coat operation [40 CFR 60.392(b)].
- (3) 1.47 kilograms of VOC per liter of applied coating solids from each topcoat operation [40 CFR 60.392(c)].

### Compliance Demonstration Method:

- (1) The owner or operator shall use the following procedures for each affected facility which uses a capture system and a control device that destroys VOC (e.g., incinerator) to comply with the applicable emission limit specified under 40 CFR 60.392 [40 CFR 60.393(c)(2)].
  - i. Calculate the volume weighted average mass of VOC per volume of applied coating solids (G) during each calendar month for each affected facility as described under 40 CFR 60.393(c)(1)(i) [40 CFR 60.393(c)(2)(i)].

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}$$

$$L_s = \sum_{i=1}^n L_{ci} V_{si}$$

$$T = \frac{\sum_{i=1}^n T_i V_{si} L_{cil}}{\sum_{l=1}^p L_s}$$

$$G = \frac{M_o M_d}{L_s T}$$

Where;

- $D_{ci}$  = density of each coating (i) as received (kilograms per liter),
- $D_{dj}$  = density of each type VOC dilution solvent (j) added to the coatings, as received (kilograms per liter),
- $D_r$  = density of VOC recovered from an affected facility (kilograms per liter),
- $G$  = volume weighted average mass of VOC per volume of applied solids (kilograms per liter),
- $L_{ci}$  = volume of each coating (i) consumed, as received (liters),
- $L_{cil}$  = Volume of each coating (i) consumed by each application method (l), as received (liters),
- $L_{dj}$  = volume of each type VOC dilution solvent (j) added to the coatings, as received (liters),
- $L_s$  = volume of solids in coatings consumed (liters),
- $M_d$  = total mass of VOC in dilution solvent (kilograms),
- $M_o$  = total mass of VOC in coatings as received (kilograms),
- $T$  = overall transfer efficiency,
- $T_l$  = transfer efficiency for application method (l),
- $V_{si}$  = proportion of solids by volume in each coating (i) as received (liter solids/liter coating)
- $W_{oi}$  = proportion of VOC by weight in each coating (i), as received (kilogram VOC/kilogram coating)

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- ii. (Calculate the volume weighted average mass of VOC per volume of applied solids emitted after the control device, by the following equation [40 CFR 60.393(c)(2)(ii)]:

$$N = G[1 - FE]$$

Where;

E = VOC destruction or removal efficiency of the control device,

F = fraction of total VOC which is emitted by an affected facility that enters the control device,

G = volume weighted average mass of VOC per volume of applied solids (kilograms per liter),

N = volume weighted average mass of VOC per volume of applied coating solids after the control device (kilograms VOC / liter of applied solids)

- A. Determine the fraction of total VOC which is emitted by an affected facility that enters the control device by using the following equation where “n” is the total number of stacks entering the control device and “p” is the total number of stacks not connected to the control device. If the owner can justify to the Administrator's satisfaction that another method will give comparable results, the Administrator will approve its use on a case-by-case basis [40 CFR 60.393(c)(2)(ii)(A)].

$$\sum_{i=1}^n$$

- 1) In subsequent months, the owner or operator shall use the most recently determined capture fraction for the performance test [40 CFR 60.393(a)(c)(2)(ii)(a)(I)].
- B. Determines the destruction efficiency of the control device using values of the volumetric flow rate of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation where “n” is the total number of stacks entering the control device and “m” is the total number of stacks leaving the control device[40 CFR 60.393(a)(c)(2)(ii)(B)]:

$$E = \frac{\sum_{i=1}^n Q_{bi}C_{bi} - \sum_{j=1}^m Q_{aj}C_{aj}}{\sum_{i=1}^n Q_{bi}C_{bi}}$$

Where;

C<sub>aj</sub> = concentration of VOC (as carbon) in the effluent gas flowing through stack (j) leaving the control device (parts per million by volume),

C<sub>bi</sub> = concentration of VOC (as carbon) in the effluent gas flowing through stack (i) entering the control device (parts per million by volume),

E = VOC destruction or removal efficiency of the control device,

Q<sub>aj</sub> = volumetric flow rate of the effluent gas flowing through stack (j) leaving the control device (dry standard cubic meters per hour),



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

$Q_{bi}$  = volumetric flow rate of the effluent gas flowing through stack (i) entering the control device (dry standard cubic meters per hour),

- 1) In subsequent months, the owner or operator shall use the most recently determined VOC destruction efficiency for the performance test [40 CFR 60.393(c)(2)(ii)(B)(I)].
- C. If an emission control device controls the emissions from more than one affected facility, the owner or operator shall measure the VOC concentration ( $C_{bi}$ ) in the effluent gas entering the control device (in parts per million by volume) and the volumetric flow rate ( $Q_{bi}$ ) of the effluent gas (in dry standard cubic meters per hour) entering the device through each stack. The destruction or removal efficiency determined using these data shall be applied to each affected facility served by the control device [40 CFR 60.393(c)(2)(ii)(C)].
- i. If the volume weighted average mass of VOC per volume of applied solids emitted after the control device (N) calculated on a calendar month basis is less than or equal to the applicable emission limit specified in 40 CFR 60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of 40 CFR 60 subpart MM [40 CFR 60.393(c)(2)(iii)].

**3. Testing Requirements:**

- a. Testing shall be Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1].
- b. The owner or operator of an affected facility shall conduct an initial performance test in accordance with 40 CFR 60.8(a) and thereafter for each calendar month for each affected facility according to the procedures in 40 CFR 60.393 [40 CFR 60.393(b)].

**4. Specific Monitoring Requirements:**

- a. The owner or operator of an affected facility which uses an incinerator to comply with the emission limits specified under 40 CFR 60.392 shall install, calibrate, maintain, and operate temperature measurement devices as prescribed below [40 CFR 60.394]:
  - (1) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox.
  - (2) Each temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of  $\pm 5$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5$  °C.
  - (3) Each temperature measurement device shall be equipped with a recording device so that a permanent record is produced.

**5. Specific Recordkeeping Requirements:**

See subsection 6. **Specific Reporting Requirements.**

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****6. Specific Reporting Requirements:**

- a. Each owner or operator of an affected facility shall include the data outlined in paragraphs (a)(1) and (2) in the initial compliance report required by 40 CFR 60.8 [40 CFR 60.395(a)].
  - (1) The owner or operator shall report the volume weighted average mass of VOC per volume of applied coating solids for each affected facility [40 CFR 60.395(a)(1)].
  - (2) Where compliance is achieved through the use of incineration, the owner or operator shall include the following additional data in the control device initial performance test required by 40 CFR 60.8(a) or subsequent performance tests at which destruction efficiency is determined: the combustion temperature (or the gas temperature upstream and downstream of the catalyst bed), the total mass of VOC per volume of applied coating solids before and after the incinerator, capture efficiency, the destruction efficiency of the incinerator used to attain compliance with the applicable emission limit specified in 40 CFR 60.392 and a description of the method used to establish the fraction of VOC captured and sent to the control device [[40 CFR 60.395(a)(2)].
- b. Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under 40 CFR 60.392. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually. Where compliance is achieved through the use of a capture system and control device, the volume-weighted average after the control device should be reported [40 CFR 60.395(b)].
- c. Where compliance with 40 CFR 60.392 is achieved through the use of incineration, the owner or operator shall continuously record the incinerator combustion temperature during coating operations for thermal incineration or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration. The owner or operator shall submit a written report at the frequency specified in 40 CFR 60.7(c) and as defined below [40 CFR 60.395(c)].
  - (1) For thermal incinerators, every three-hour period shall be reported during which the average temperature measured is more than 28 °C less than the average temperature during the most recent control device performance test at which the destruction efficiency was determined as specified under 40 CFR 60.393 [40 CFR 60.395(c)(1)].

**7. Specific Control Equipment Operating Conditions:**

N/A

## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Group Requirements**

#### **40 CFR 63 Subpart IIII Affected Sources**

#### **LIST of POINTS**

**C06 Sealer and Adhesive Application**

**C09 Small Parts Electro deposition System, Including Rinse Tanks, Dip Tank, and Oven (Line 1)**

**C10 Fuel Tank Antichip Coating (Line 1 & 2),**

**C12 Non-Process Cleaning**

**C16 Bodyweld Sealers and Adhesives**

**A02, B02, M01 Miscellaneous Wax Coating Operations**

**A03, B03, M02 Glass Bonding Primer, Glass Bonding Adhesive**

**A04, B04, M06 Adhesives and sealers other than glass bonding adhesive**

**A06, B06, M07 Non -Process Cleaning**

**A07, B07, M05 Process Cleaning**

**A10, B10 Final Repair**

**A14, Battery Assembly**

**L01 Final Repair**

**L04 Non-Process Cleaning Activities**

**E02R, F02 & F19 Electro deposition primer**

**E04R, F04 & F20 Primer-surfacer, Deadener**

**E04R, F04, F20 Adhesives and sealers**

**E05R, F05 & F21 Primer-surfacer**

**E07R, F07 & F22 Topcoat**

**E09R, F09 Blackout**

**E11R, F11 & F23 Wax Coating**

**E12R, F12 & F24 Final Repair**

**G04, G26 Coatings and repair painting**

**G21, G22 Coating, process cleaning and repair painting**

**E13R, F13, F25, G19 & G27 Non-Process Cleaning**

**E04R, E05R, E07R, F04, F05, F07, F26 & G28 Process Cleaning**

**H02 Primer-surfacer**

**H05 Non-Process Cleaning**

**H06 Corrosion Inhibitor Application**

**H10 Sealer and Adhesives**

**H14 Block Impregnation**

**H16 Process Cleaning Operations**

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****APPLICABLE REGULATIONS:**

**401 KAR 63:002 Section 2(4)(ooo), 40 C.F.R. 63.3080 to 63.3176, Tables 1 through 4, and Appendix A (Subpart IIII), *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks***

**1. Operating Limitations:**

- a. The usage rates of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in Section B.2.
- b. The permittee may choose to include in their affected source, and thereby make subject to the requirements of 40 CFR 63 subpart IIII, any coating operations, as defined in 40 CFR 63.3176, which would otherwise be subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (subpart MMMM of 40 CFR Part 63) or the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (subpart PPPP of 40 CFR Part 63) which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles, parts intended for use in new automobiles, new light-duty trucks, or new other motor vehicles, or aftermarket repair or replacement parts for automobiles, light-duty trucks, or other motor vehicles [40 CFR 63.3082(c)].
- c. For all coating operations which the permittee chooses to add to their affected source pursuant to paragraph (c) of 40 CFR 63.3082 [40 CFR 63.3082(d)]:
  - (1) All associated storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and storage containers and manual and automated equipment and containers used for conveying waste materials are also included in the permittee's affected source and are subject to the requirements of 40 CFR 63 subpart IIII.
  - (2) All cleaning and purging of equipment associated with the added surface coating operations is subject to the requirements of 40 CFR 63 subpart IIII.
  - (3) The permittee must identify and describe all additions to the affected source made pursuant to 40 CFR 63.3082(d).
- d. If the permittee's facility has multiple paint lines (e.g., two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of 40 CFR 63.3091 [40 CFR 63.3091(f)]:
  - (1) The permittee may choose to use a single grouping under paragraph (a) of 40 CFR 63.3091 for all of their electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.
  - (2) The permittee may choose to use a single grouping under paragraph (b) of 40 CFR 63.3091 for all of their primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations as long as each of their electrodeposition primer systems meets the operating limits of 40 CFR 63.3092(a) or (b).

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (3) The permittee may choose to use one or more groupings under paragraph (a) of 40 CFR 63.3091 for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of their paint lines; and one or more groupings under paragraph (b) of 40 CFR 63.3091 for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of their paint lines, as long as each electrodeposition primer system associated with each paint line the permittee includes in a grouping under paragraph (b) of 40 CFR 63.3091 meets the operating limits of 40 CFR 63.3092(a) or (b). For example, if the facility has three paint lines, the permittee may choose to use one grouping under paragraph (a) of 40 CFR 63.3091 for two of the paint lines; and a separate grouping under paragraph (b) of 40 CFR 63.3091 for the third paint line, as long as the electrodeposition primer system associated with the paint line the permittee includes in the grouping under paragraph (b) of 40 CFR 63.3091 meets the operating limits of 40 CFR 63.3092(a) or (b). Alternatively, the permittee may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line the permittee includes in a grouping under paragraph (b) of 40 CFR 63.3091 must meet the operating limits of 40 CFR 63.3092(a) or (b).
- (4) The permittee may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of their paint lines as a separate grouping under either paragraph (a) or paragraph (b) of 40 CFR 63.3091. The electrodeposition primer system associated with each paint line the permittee chooses to consider in a grouping under paragraph (b) of 40 CFR 63.3091 must meet the operating limits of 40 CFR 63.3092(a) or (b). For example, if the facility has two paint lines, the permittee may choose to use the grouping under paragraph (a) of 40 CFR 63.3091 for one paint line and the grouping under paragraph (b) of 40 CFR 63.3091 for the other paint line.
- e. The permittee not required to meet any operating limits for any coating operation(s) without add-on controls, nor are they required to meet operating limits for any coating operation(s) that do not utilize emission capture systems and add-on controls to comply with the emission limits in 40 CFR 63.3090 or 40 CFR 63.3091 [40 CFR 63.3093(a)].
- f. Except as provided in paragraph (d) of 40 CFR 63.3093, for any controlled coating operation(s), the permittee must meet the operating limits specified in table 1 to 40 CFR 63 subpart III. These operating limits apply to the emission capture and add-on control systems on the coating operation(s) for which the permittee uses this option, and the permittee must establish the operating limits during performance tests according to the requirements in 40 CFR 63.3167. The permittee must meet the operating limits at all times after the permittee establishes them [40 CFR 63.3093(b)].
- (1) For Thermal Oxidizers [Table 1 to 40 CFR 63 subpart III]:
- The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3167(a)
- Compliance Demonstration Method:**
- Collecting the combustion temperature data according to 40 CFR 63.3168(c);
  - Reducing the data to 3-hour block averages; and

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- iii. Maintaining the 3-hour average combustion temperature at or above temperature limit.
- (2) For Concentrators, including zeolite wheels and rotary carbon adsorbers [Table 1 to 40 CFR 63 subpart IIII]:  
The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to 40 CFR 63.3167(e)  
**Compliance Demonstration Method:**
  - i. Collecting the temperature data according to 40 CFR 63.3168(f);
  - ii. Reducing the data to 3-hour block averages; and
  - iii. Maintaining the 3-hour average temperature at or above the temperature limit.
- (3) For Emission capture systems that are a PTE [Table 1 to 40 CFR 63 subpart IIII]:
  - i. The direction of the air flow at all times must be into the enclosure; and either
  - ii. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
  - iii. The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR part 51**Compliance Demonstration Method:**
  - i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR 63.3168(g)(1) or the pressure drop across the enclosure according to 40 CFR 63.3168(g)(2); and
  - ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
- (4) For Emission capture systems that are not a PTE [Table 1 to 40 CFR 63 subpart IIII]:  
The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3167(f). This applies only to capture devices that are not part of a PTE that meets the criteria of 40 CFR 63.3165(a) and that are not capturing emissions from a downdraft spray booth or from a flashoff area or bake oven associated with a downdraft spray booth  
**Compliance Demonstration Method:**
  - i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to 40 CFR 63.3168(g);
  - ii. Reducing the data to 3-hour block averages; and
  - iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.
- g. If the permittee chooses to meet the emission limitations of 40 CFR 63.3092(b) and the emission limits of 40 CFR 63.3090(b) or 40 CFR 63.3091(b), then except as provided in paragraph (d) of 40 CFR 63.3093, the permittee must operate the capture system and add-on control device used to capture and control emissions from their electrodeposition primer bake oven(s) so that they meet the operating limits specified in Table 1 to 40 CFR 63 subpart IIII [40 CFR 63.3093(c)].

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- h. If the permittee uses an add-on control device other than those listed in Table 1 to 40 CFR 63 subpart IIII, or wish to monitor an alternative parameter and comply with a different operating limit, the permittee must apply to the Administrator for approval of alternative monitoring under 40 CFR 63.8(f) [40 CFR 63.3093(d)].
- i. The permittee must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established under 40 CFR 63.3090(a) through (d) or 40 CFR 63.3091(a) through (d). The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of 40 CFR 63.3094 are implemented [40 CFR 63.3094(b)].
  - (1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.
  - (2) The risk of spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.
  - (3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
  - (4) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.
  - (5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.
- j. The permittee must develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established under 40 CFR 63.3090(a) through (d) or 40 CFR 63.3091(a) through (d) [40 CFR 63.3094(c)].
  - (1) The plan shall, at a minimum, address each of the operations listed in paragraphs (c)(1)(i) through (viii) of 40 CFR 63.3094 in which the permittee uses organic-HAP-containing materials or in which there is a potential for emission of organic HAP.
    - i. The plan must address vehicle body wipe emissions through one or more of the techniques listed in paragraphs (c)(1)(i)(A) through (E) of 40 CFR 63.3094, or an approved alternative.
      - A. Use of solvent-moistened wipes.
      - B. Keeping solvent containers closed when not in use.
      - C. Keeping wipe disposal/recovery containers closed when not in use.
      - D. Use of tack-wipes.
      - E. Use of solvents containing less than 1 percent organic HAP by weight.
    - ii. The plan must address coating line purging emissions through one or more of the techniques listed in paragraphs (c)(1)(ii)(A) through (D) of 40 CFR 63.3094, or an approved alternative.
      - A. Air/solvent push-out.
      - B. Capture and reclaim or recovery of purge materials (excluding applicator nozzles/tips).

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- C. Block painting to the maximum extent feasible.
- D. Use of low-HAP or no-HAP solvents for purge.
- iii. The plan must address emissions from flushing of coating systems through one or more of the techniques listed in paragraphs (c)(1)(iii)(A) through (D) of 40 CFR 63.3094, or an approved alternative.
  - A. Keeping solvent tanks closed.
  - B. Recovering and recycling solvents.
  - C. Keeping recovered/recycled solvent tanks closed.
  - D. Use of low-HAP or no-HAP solvents.
- iv. The plan must address emissions from cleaning of spray booth grates through one or more of the techniques listed in paragraphs (c)(1)(iv)(A) through (E) of 40 CFR 63.3094, or an approved alternative.
  - A. Controlled burn-off.
  - B. Rinsing with high-pressure water (in place).
  - C. Rinsing with high-pressure water (off line).
  - D. Use of spray-on masking or other type of liquid masking.
  - E. Use of low-HAP or no-HAP content cleaners.
- v. The plan must address emissions from cleaning of spray booth walls through one or more of the techniques listed in paragraphs (c)(1)(v)(A) through (E) of 40 CFR 63.3094, or an approved alternative.
  - A. Use of masking materials (contact paper, plastic sheet, or other similar type of material).
  - B. Use of spray-on masking.
  - C. Use of rags and manual wipes instead of spray application when cleaning walls.
  - D. Use of low-HAP or no-HAP content cleaners.
  - E. Controlled access to cleaning solvents.
- vi. The plan must address emissions from cleaning of spray booth equipment through one or more of the techniques listed in paragraphs (c)(1)(vi)(A) through (E) of 40 CFR 63.3094, or an approved alternative.
  - A. Use of covers on equipment (disposable or reusable).
  - B. Use of parts cleaners (off-line submersion cleaning).
  - C. Use of spray-on masking or other protective coatings.
  - D. Use of low-HAP or no-HAP content cleaners.
  - E. Controlled access to cleaning solvents.
- vii. The plan must address emissions from cleaning of external spray booth areas through one or more of the techniques listed in paragraphs (c)(1)(vii)(A) through (F) of 40 CFR 63.3094, or an approved alternative.
  - A. Use of removable floor coverings (paper, foil, plastic, or similar type of material).
  - B. Use of manual and/or mechanical scrubbers, rags, or wipes instead of spray application.
  - C. Use of shoe cleaners to eliminate coating track-out from spray booths.
  - D. Use of booties or shoe wraps.
  - E. Use of low-HAP or no-HAP content cleaners.
  - F. Controlled access to cleaning solvents.



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- viii. The plan must address emissions from housekeeping measures not addressed in paragraphs (c)(1)(i) through (vii) of 40 CFR 63.3094 through one or more of the techniques listed in paragraphs (c)(1)(viii)(A) through (C) of 40 CFR 63.3094 or an approved alternative.
  - A. Keeping solvent-laden articles (cloths, paper, plastic, rags, wipes, and similar items) in covered containers when not in use.
  - B. Storing new and used solvents in closed containers.
  - C. Transferring of solvents in a manner to minimize the risk of spills.
- (2) Notwithstanding the requirements of paragraphs (c)(1)(i) through (viii) of 40 CFR 63.3094, if the type of coatings used in any facility with surface coating operations subject to the requirements of 40 CFR 63.3094 are of such a nature that the need for one or more of the practices specified under paragraphs (c)(1)(i) through (viii) is eliminated, then the plan may include approved alternative or equivalent measures that are applicable or necessary during cleaning of storage, conveying, and application equipment.
- k. As provided in 40 CFR 63.6(g), the Environmental Protection Agency (EPA), may choose to grant the permittee permission to use an alternative to the work practice standards in 40 CFR 63.3094 [40 CFR 63.3094(d)].
- l. The work practice plans developed in accordance with paragraphs (b) and (c) of 40 CFR 63.3094 are not required to be incorporated in the permittee's title V permit. Any revisions to the work practice plans developed in accordance with paragraphs (b) and (c) of 40 CFR 63.3094 do not constitute revisions to the permittee's title V permit [40 CFR 63.3094(e)].
- m. On and after January 5, 2021, the coating operations must be in compliance with the operating limits for emission capture systems and add-on control devices required by 40 CFR 63.3093 at all times [40 CFR 63.3100(b)].
- n. The permittee must be in compliance with the work practice standards in 40 CFR 63.3094 at all times [40 CFR 63.3100(c)].
- o. On and after January 5, 2021, at all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source [40 CFR 63.3100(d)].
- p. The permittee must maintain a log detailing the operation and maintenance of the emission capture systems, add-on control devices, and continuous parameter monitoring

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

systems (CPMS) during the period between the compliance date specified for the permittee's affected source in 40 CFR 63.3083 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in 40 CFR 63.3160 [40 CFR 63.3100(e)].

**2. Emission Limitations:**

- a. Except as provided in paragraph (b) of 40 CFR 63.3091, the permittee must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) to no more than 0.072 kilogram (kg)/liter (0.60 pound lb/gal) of coating solids deposited during each month, determined according to the requirements in 40 CFR 63.3161 [40 CFR 63.3091(a)].

**Compliance Demonstration Method for 40 CFR 63.3091 (a) [Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive]:**

- (1) *Existing affected sources.* For an existing affected source, the permittee must meet the requirements of paragraphs (b)(1) through (3) of 40 CFR 63.3160 [40 CFR 63.3160(b)].
  - i. All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in 40 CFR 63.3083. The permittee must conduct an initial performance test of each capture system and add-on control device according to the procedures in 40 CFR 63.3164 through 63.3166 and establish the operating limits required by 40 CFR 63.3093 no later than the compliance date specified in 40 CFR 63.3083.
  - ii. The permittee must develop and begin implementing the work practice plans required by 40 CFR 63.3094(b) and (c) no later than the compliance date specified in 40 CFR 63.3083.
  - iii. The permittee must complete the initial compliance demonstration for the initial compliance period according to the requirements of 40 CFR 63.3161. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. The permittee must determine the mass of organic HAP emissions and volume of coating solids deposited during the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to 40 CFR 63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limits in 40 CFR 63.3091(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by 40 CFR 63.3168; and documentation of whether the permittee developed and implemented the work practice plans required by 40 CFR 63.3094(b) and (c).

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (2) The permittee is not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if the permittee receives approval to use the results of a performance test that has been previously conducted on that capture system (either a previous stack test or a previous panel test) or control device. The permittee is not required to conduct an initial test to determine transfer efficiency if the permittee receives approval to use the results of a test that has been previously conducted. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of 40 CFR 63.3160 [40 CFR 63.3160(c)].
- i. The previous test must have been conducted using the methods and conditions specified in 40 CFR 63 subpart III.
  - ii. Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test reliably demonstrate compliance despite process or equipment changes.
  - iii. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.
- (3) The permittee must meet all of the requirements of 40 CFR 63.3161 to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) must meet the applicable emission limitation in 40 CFR 63.3090(a) or 40 CFR 63.3091(a) and the applicable operating limits and work practice standards in 40 CFR 63.3093 and 63.3094 [40 CFR 63.3161(a)].
- (4) *Compliance with operating limits.* Except as provided in 40 CFR 63.3160(a)(4), the permittee must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by 40 CFR 63.3093, using the procedures specified in 40 CFR 63.3167 and 63.3168 [40 CFR 63.3161(b)].
- (5) *Compliance with work practice requirements.* The permittee must develop, implement, and document their implementation of the work practice plans required by 40 CFR 63.3094(b) and (c) during the initial compliance period, as specified in 40 CFR 63.3130 [40 CFR 63.3161(c)].
- (6) *Compliance with emission limits.* The permittee must follow the procedures in paragraphs (e) through (o) of 40 CFR 63.3161 to demonstrate compliance with the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a). The permittee may also use the guidelines presented in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations" EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14), in making this demonstration [40 CFR 63.3161(d)].
- (7) *Determine the mass fraction of organic HAP, density, and volume used.* Follow the procedures specified in 40 CFR 63.3151(a) through (c) to determine the mass fraction of organic HAP and the density and volume of each coating and thinner used during each month. For electrodeposition primer operations, the mass fraction of organic HAP,

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

density, and volume used must be determined for each material added to the tank or system during each month [40 CFR 63.3161(e)].

- (8) *Calculate the total mass of organic HAP emissions before add-on controls.* Calculate the total mass of organic HAP emissions before consideration of add-on controls from all coatings and thinners used during each month in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) using Equation 1 of 40 CFR 63.3161 [40 CFR 63.3161(h)]:

$$H_{BC} = A + B \quad (\text{Eq. 1})$$

Where:

$H_{BC}$  = Total mass of organic HAP emissions before consideration of add-on controls during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of 40 CFR 63.3161.

B = Total mass of organic HAP in the thinners used during the month, kg, as calculated in Equation 1B of 40 CFR 63.3161.

- i. Calculate the kg organic HAP in the coatings used during the month using Equation 1A of 40 CFR 63.3161:

$$A = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$  = Total volume of coating, i, used during the month, liters.

$D_{c,i}$  = Density of coating, i, kg coating per liter coating.

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used during the month.

- ii. Calculate the kg of organic HAP in the thinners used during the month using Equation 1B of 40 CFR 63.3161:

$$B = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

B = Total mass of organic HAP in the thinners used during the month, kg.

$Vol_{t,j}$  = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the month.

- (9) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

operation during each month. The emission reduction determination quantifies the total organic HAP emissions captured by the emission capture system and destroyed or removed by the add-on control device. Use the procedures in paragraph (j) of 40 CFR 63.3161 to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which the permittee conducts liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which the permittee conducts a liquid-liquid material balance, use the procedures in paragraph (k) of 40 CFR 63.3161 to calculate the organic HAP emission reduction [40 CFR 63.3161(i)].

- (10) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which the permittee conducts liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the controlled coating operation, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, during the month using Equation 2 of 40 CFR 63.3161. The calculation of mass of organic HAP emission reduction for the controlled coating operation during the month applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. Except as provided in paragraph (p) of 40 CFR 63.3161, for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement of the capture system or control device serving the controlled coating operation occurred, the permittee must assume zero efficiency for the emission capture system and add-on control device. Equation 2 of 40 CFR 63.3161 treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation [40 CFR 63.3161(j)].

$$H_{Cn} = (A_C + B_C - A_{unc} - B_{unc}) \left( \frac{CE}{100} \times \frac{DRE}{100} \right) \quad (\text{Eq. 2})$$

Where:

$H_{Cn}$  = Mass of organic HAP emission reduction, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, kg.

$A_C$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 2A of 40 CFR 63.3161.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$B_C$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 2B of 40 CFR 63.3161.

$A_{unc}$  = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2C of 40 CFR 63.3161.

$B_{unc}$  = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2D of 40 CFR 63.3161.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in 40 CFR 63.3164 and 63.3165 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in 40 CFR 63.3164 and 63.3166 to measure and record the organic HAP destruction or removal efficiency.

- i. Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg, using Equation 2A of 40 CFR 63.3161.

$$A_C = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad (\text{Eq. 2A})$$

Where:

$A_C$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$  = Total volume of coating, i, used during the month, liters.

$D_{c,i}$  = Density of coating, i, kg per liter.

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg per kg.

$m$  = Number of different coatings used.

- ii. Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 2B of 40 CFR 63.3161.

$$B_C = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (\text{Eq. 2B})$$

Where:

$B_C$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg.

$Vol_{t,j}$  = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

- iii. Calculate the mass of organic HAP in the coatings used in the controlled coating operation during deviations specified in 40 CFR 63.3163(c) and (d), using Equation 2C of 40 CFR 63.3161:

$$A_{unc} = \sum_{i=1}^m (VOLD_i)(D_i)(W_i) \quad (\text{Eq. 2C})$$

Where:

$A_{unc}$  = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

$VOLD_i$  = Total volume of coating, i, used in the controlled coating operation during deviations, liters.

$D_i$  = Density of coating, i, kg per liter.

$W_i$  = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings.

- iv. Calculate the mass of organic HAP in the thinners used in the controlled coating operation during deviations specified in 40 CFR 63.3163(c) and (d), using Equation 2D of 40 CFR 63.3161:

$$B_{unc} = \sum_{j=1}^n (VOLD_j)(D_j)(W_j) \quad (\text{Eq. 2D})$$

Where:

$B_{unc}$  = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

$VOLD_j$  = Total volume of thinner, j, used in the controlled coating operation during deviations, liters.

$D_j$  = Density of thinner, j, kg per liter.

$W_h$  = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg coating.

n = Number of different thinners.

- (11) *Calculate the total volume of coating solids deposited.* Determine the total volume of coating solids deposited, liters, in the combined electrodeposition primer, primer-

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

surfacers, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) using Equation 5 of 40 CFR 63.3161 [40 CFR 63.3161(l)]:

$$V_{sdep} = \sum_{i=1}^m (Vol_{c,i})(V_{s,i})(TE_{c,i})/100 \quad (\text{Eq. 5})$$

Where:

$V_{sdep}$  = Total volume of coating solids deposited during the month, liters.

$Vol_{c,i}$  = Total volume of coating, i, used during the month, liters.

$V_{s,i}$  = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to 40 CFR 63.3161(f).

$TE_{c,i}$  = Transfer efficiency of coating, i, determined according to 40 CFR 63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60.

M = Number of coatings used during the month.

(12) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 6 of 40 CFR 63.3161 [40 CFR 63.3161(m)].

$$H_{HAP} = H_{BC} - \sum_{i=1}^q (H_{Cn,i}) - \sum_{j=1}^r (H_{CSR,j}) - \sum_{k=1}^q \sum_{m=1}^{Sk} (H_{DEV,k,m}) \quad (\text{Eq. 6})$$

Where:

$H_{HAP}$  = Total mass of organic HAP emissions for the month, kg.

$H_{BC}$  = Total mass of organic HAP emissions before add-on controls from all the coatings and thinners used during the month, kg, determined according to paragraph (h) of 40 CFR 63.3161.

$H_{Cn, i}$  = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, from Equation 2 of 40 CFR 63.3161.

$H_{CSR, j}$  = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 4 of 40 CFR 63.3161.

$H_{DEV, k, m}$  = Mass of organic HAP emission reduction, based on the capture system and control device efficiency approved under paragraph (p) of 40 CFR 63.3161 for period of deviation, m, for controlled coating operation, k, kg, as determined using Equation 8 of 40 CFR 63.3161.

q = Number of controlled coating operations not using a liquid-liquid material balance.



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

S<sub>k</sub> = Number of periods of deviation in the month for which non-zero capture and control device efficiencies have been approved for controlled coating operation, k.

- (13) *Calculate the organic HAP emission rate for the month.* Determine the organic HAP emission rate for the month, kg organic HAP per liter coating solids deposited, using Equation 7 of 40 CFR 63.3161 [40 CFR 63.3161(n)]:

$$H_{rate} = (H_{HAP}) / (V_{sdep}) \quad (\text{Eq. 7})$$

Where:

H<sub>rate</sub> = Organic HAP emission rate for the month compliance period, kg organic HAP per liter coating solids deposited.

H<sub>HAP</sub> = Mass of organic HAP emissions for the month, kg, determined according to Equation 6 of 40 CFR 63.3161.

V<sub>sdep</sub> = Total volume of coating solids deposited during the month, liters, from Equation 5 of 40 CFR 63.3161.

- (14) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) must be less than or equal to the applicable emission limitation in 40 CFR 63.3090(a) or 40 CFR 63.3091(a). The permittee must keep all records as required by 40 CFR 63.3130 and 63.3131. As part of the Notification of Compliance Status required by 40 CFR 63.3110, the permittee must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a) and the permittee achieved the operating limits required by 40 CFR 63.3093 and the work practice standards required by 40 CFR 63.3094 [40 CFR 63.3161(o)].
- (15) The permittee may request approval from the Administrator to use non-zero capture efficiencies and add-on control device efficiencies for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation occurred [40 CFR 63.3161(p)].
- If the permittee has manually collected parameter data indicating that a capture system or add-on control device was operating normally during a CPMS malfunction, a CPMS out-of-control period, or associated repair, then these data may be used to support and document the permittee's request to use the normal capture efficiency or add-on control device efficiency for that period of deviation.
  - If the permittee has data indicating the actual performance of a capture system or add-on control device (*e.g.*, capture efficiency measured at a reduced flow rate or

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

add-on control device efficiency measured at a reduced thermal oxidizer temperature) during a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation, then these data may be used to support and document the permittee's request to use these values for that period of deviation.

- iii. The organic HAP emission reduction achieved during each period of deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation for which the Administrator has approved the use of non-zero capture efficiency and add-on control device efficiency values is calculated using Equation 8 of 40 CFR 63.3161.

$$H_{DEV} = (A_{DEV} + B_{DEV}) \left( \frac{CE_{DEV}}{100} \right) \left( \frac{DRE_{DEV}}{100} \right) \quad (\text{Eq. 8})$$

Where:

$H_{DEV}$  = Mass of organic HAP emission reduction achieved during a period of deviation for the controlled coating operation, kg.

$A_{DEV}$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8A of 40 CFR 63.3161.

$B_{DEV}$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8B of 40 CFR 63.3161.

$CE_{DEV}$  = Capture efficiency of the emission capture system vented to the add-on control device, approved for the period of deviation, percent.

$DRE_{DEV}$  = Organic HAP destruction or removal efficiency of the add-on control device approved for the period of deviation, percent.

- iv. Calculate the total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation using equation 8A of 40 CFR 63.3161:

$$A_{DEV} = \sum_{i=1}^m (VOL_{CDEV,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 8A})$$

Where:

$A_{DEV}$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg.

$VOL_{CDEV, i}$  = total volume of coating, i, used in the controlled coating operation during the period of deviation, liters.

$D_{c, i}$  = Density of coating, i, kg per liter.

$W_{c, i}$  = Mass fraction of organic HAP in coating, i, kg per kg.

$m$  = Number of different coatings used.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- v. Calculate the total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation using equation 8B of 40 CFR 63.3161:

$$B_{DEV} = \sum_{j=1}^n (VOL_{TDEV,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 8B})$$

Where:

$B_{DEV}$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg.

$VOL_{TDEV,j}$  = Total volume of thinner, j, used in the controlled coating operation during the period of deviation, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

- (16) To demonstrate continuous compliance with the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a), the organic HAP emission rate for each compliance period, determined according to the procedures in 40 CFR 63.3161, must be equal to or less than the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in 40 CFR 63.3160 is a compliance period consisting of that month. The permittee must perform the calculations in 40 CFR 63.3161 on a monthly basis [40 CFR 63.3163(a)].
- (17) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a), this is a deviation from the emission limitation for that compliance period and must be reported as specified in 40 CFR 63.3110(c)(6) and 63.3120(a)(6) [40 CFR 63.3163(b)].
- (18) The permittee must meet the requirements for bypass lines in 40 CFR 63.3168(b) for control devices other than solvent recovery systems for which the permittee conducts liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in 40 CFR 63.3110(c)(6) and 63.3120(a)(6). For the purposes of completing the compliance calculations specified in 40 CFR 63.3161(k), the permittee must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation [40 CFR 63.3163(d)].
- (19) The permittee must demonstrate continuous compliance with the work practice standards in 40 CFR 63.3094. If the permittee did not develop a work practice plan, if the permittee did not implement the plan, or if the permittee did not keep the records required by 40 CFR 63.3130(n), this is a deviation from the work practice standards that must be reported as specified in 40 CFR 63.3110(c)(6) and 63.3120(a)(6) [40 CFR 63.3163(e)].
- (20) If there were no deviations from the emission limitations, submit a statement as part of the semiannual compliance report that the permittee was in compliance with the

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a), 40 CFR 63.3090(b) or 40 CFR 63.3091(b), or 40 CFR 63.3092(a) or 40 CFR 63.3092(b), the permittee achieved the operating limits required by 40 CFR 63.3093, and the permittee achieved the work practice standards required by 40 CFR 63.3094 during each compliance period [40 CFR 63.3163(f)].
- (21) The permittee must maintain records as specified in 40 CFR 63.3130 and 63.3131 [40 CFR 63.3163(j)].
- (22) *General.* The permittee must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of 40 CFR 63.3168 according to paragraphs (a)(1) through (6) of 40 CFR 63.3168. The permittee must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of 40 CFR 63.3168 according to paragraphs (a)(3) through (5) of 40 CFR 63.3168 [40 CFR 63.3168(a)].
- i. The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. The permittee must have a minimum of four equally-spaced successive cycles of CPMS operation in 1 hour.
  - ii. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.
  - iii. The permittee must record the results of each inspection, calibration, and validation check of the CPMS.
  - iv. The permittee must maintain the CPMS at all times in accordance with 40 CFR 63.3100(d) and have readily available necessary parts for routine repairs of the monitoring equipment.
  - v. On and after January 5, 2021, the permittee must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating in accordance with 40 CFR 63.3100(d).
  - vi. On and after January 5, 2021, startups and shutdowns are normal operation for this source category. Emissions from these activities are to be included when determining if the standards specified in 40 CFR 63.3090, 63.3091, 63.3092, 63.4292, and 63.4293 are being attained. The permittee must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. The permittee must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.
  - vii. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. On and after January 5, 2021, except for periods of required quality assurance or control activities, any period during which the CPMS fails to operate and record data continuously as required by paragraph (a)(1) of 40 CFR 63.3168, or generates data that cannot be included in calculating averages as specified in this paragraph (a)(7) constitutes a deviation from the monitoring requirements.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (23) *Capture system bypass line.* The permittee must meet the requirements of paragraphs (b)(1) and (2) of 40 CFR 63.3168 for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere [40 CFR 63.3168(b)].
- i. The permittee must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of 40 CFR 63.3168.
    - A. *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.
    - B. *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. The permittee must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.
    - C. *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. The permittee must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.
    - D. *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. The permittee must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.
  - ii. If any bypass line is opened, The permittee must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in 40 CFR 63.3120.
- (24) *Thermal oxidizers and catalytic oxidizers.* If the permittee is using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used to treat desorbed concentrate streams from concentrators or carbon adsorbers), the permittee must comply with the requirements in paragraphs (c)(1) through (3) of 40 CFR 63.3168 [40 CFR 63.3168(c)]:
- i. For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- ii. For all thermal oxidizers and catalytic oxidizers, the permittee must meet the requirements in paragraphs (a)(1) through (6) and (c)(3)(i) through (vii) of 40 CFR 63.3168 for each gas temperature monitoring device. For the purposes of this paragraph (c)(3), a thermocouple is part of the temperature sensor.
  - A. Locate the temperature sensor in a position that provides a representative temperature.
  - B. Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.
  - C. Shield the temperature sensor system from electromagnetic interference and chemical contaminants.
  - D. If a gas temperature chart recorder is used, it must have a measurement sensitivity in the minor division of at least 20 degrees Fahrenheit.
  - E. Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, the permittee must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.
  - F. Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.
  - G. At least monthly, inspect components for integrity and electrical connections for continuity, oxidation, and galvanic corrosion.
- (25) *Concentrators*. If the permittee is using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, the permittee must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a)(1) through (6) and (c)(3) of 40 CFR 63.3168 [40 CFR 63.3168(f)].
- (26) *Emission capture systems*. The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of 40 CFR 63.3168 [40 CFR 63.3168(g)].
  - i. For each flow measurement device, the permittee must meet the requirements in paragraphs (a)(1) through (6) and (g)(1)(i) through (iv) of 40 CFR 63.3168.
    - A. Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.
    - B. Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
    - C. Conduct a flow sensor calibration check at least semiannually.
    - D. At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.
  - ii. For each pressure drop measurement device, the permittee must comply with the requirements in paragraphs (a)(1) through (6) and (g)(2)(i) through (vi) of 40 CFR 63.3168.
    - A. Locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening the permittee is monitoring.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- B. Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
  - C. Check pressure tap pluggage daily.
  - D. Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.
  - E. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
  - F. At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.
- (27) The permittee may have capture systems or add-on control devices which the permittee chooses not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, the permittee is not required to comply with the requirements of 40 CFR 63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, the permittee decides to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time the permittee must comply with the requirements of 40 CFR 63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device [40 CFR 63.3169].
- b. If the permittee meets the operating limits of 40 CFR 63.3092(a) or (b), they must either meet the emission limits of paragraph (a) of 40 CFR 63.3091 or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in 40 CFR 63.3171. If the permittee does not have an electrodeposition primer system, the permittee must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in 40 CFR 63.3171 [40 CFR 63.3091(b)].

**Compliance Demonstration Method for 40 CFR 63.3091 (b) [Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive and Separate Electrodeposition Primer]:**

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (1) *Existing affected sources.* For an existing affected source, the permittee must meet the requirements of paragraphs (b)(1) through (3) of 40 CFR 63.3160 [40 CFR 63.3170(b)].
- (2) The permittee must meet all of the requirements of 40 CFR 63.3171 to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) must meet the applicable emission limitation in 40 CFR 63.3090(b) or 40 CFR 63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in 40 CFR 63.3092(a) or (b); and the permittee must meet the applicable operating limits and work practice standards in 40 CFR 63.3093 and 63.3094 [40 CFR 63.3171(a)].
- (3) *Compliance with operating limits.* Except as provided in 40 CFR 63.3160(a)(4), the permittee must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by 40 CFR 63.3093, using the procedures specified in 40 CFR 63.3167 and 63.3168 [40 CFR 63.3171(b)].
- (4) *Compliance with work practice requirements.* The permittee must develop, implement, and document their implementation of the work practice plans required by 40 CFR 63.3094(b) and (c) during the initial compliance period, as specified in 40 CFR 63.3130 [40 CFR 63.3171(c)].
- (5) *Compliance with emission limits.* The permittee must follow the procedures in 40 CFR 63.3161(e) through (n), excluding materials used in electrodeposition primer operations, to demonstrate compliance with the applicable emission limit in 40 CFR 63.3090(b) or 40 CFR 63.3091(b). The permittee must follow the procedures in paragraph (e) of 40 CFR 63.3171 to demonstrate compliance with the emission limit in 40 CFR 63.3092(a), or paragraphs (f) through (g) of 40 CFR 63.3171 to demonstrate compliance with the emission limitations in 40 CFR 63.3092(b) [40 CFR 63.3171(d)].
- (6) *Determine the mass fraction of each organic HAP in each material used in the electrodeposition primer operation.* The permittee must determine the mass fraction of each organic HAP for each material used in the electrodeposition primer operation during the compliance period by using one of the options in paragraphs (e)(1) through (3) of 40 CFR 63.3171 [40 CFR 63.3171(e)].
  - i. *Method 311 (appendix A to 40 CFR part 63).* The permittee may use Method 311 for determining the mass fraction of each organic HAP.
  - ii. *Alternative method.* The permittee may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. The permittee must follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval.
  - iii. *Information from the supplier or manufacturer of the material.* The permittee may rely on information other than that generated by the test methods specified in paragraphs (e)(1) and (2) of 40 CFR 63.3171, such as manufacturer's formulation data, if it represents each organic HAP in Table 5 to 40 CFR 63 subpart IIII that is present at 0.1 percent by mass, and at 1.0 percent by mass or more for other compounds. If there is a disagreement between such information and results of a test conducted according to paragraph (e)(1) or (2) of 40 CFR 63.3171, then the test



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

method results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

- (7) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) must meet the applicable emission limitation in 40 CFR 63.3090(b) or 40 CFR 63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in 40 CFR 63.3092(a) or (b). The permittee must keep all records as required by 40 CFR 63.3130 and 63.3131. As part of the Notification of Compliance Status required by 40 CFR 63.3110, the permittee must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) was less than or equal to the applicable emission limit in 40 CFR 63.3090(b) or 40 CFR 63.3091(b), and the organic HAP emissions from the electrodeposition primer operation met the applicable emissions limitations in 40 CFR 63.3092(a) or (b), and the permittee achieved the operating limits required by 40 CFR 63.3093 and the work practice standards required by 40 CFR 63.3094 [40 CFR 63.3171(h)].
- (8) To demonstrate continuous compliance with the applicable emission limit in 40 CFR 63.3090(b) or 40 CFR 63.3091(b), the organic HAP emission rate for each compliance period determined according to the procedures in 40 CFR 63.3171 must be equal to or less than the applicable emission limit in 40 CFR 63.3090(b) or 40 CFR 63.3091(b). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in 40 CFR 63.3170 is a compliance period consisting of that month. The permittee must perform the calculations in 40 CFR 63.3171 on a monthly basis [40 CFR 63.3173(a)].
- (9) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in 40 CFR 63.3090(b) or 40 CFR 63.3091(b), this is a deviation from the emission limitation for that compliance period and must be reported as specified in 40 CFR 63.3110(c)(6) and 63.3120(a)(6) [40 CFR 63.3173(b)].
- (10) The permittee may have capture systems or add-on control devices which the permittee chooses not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, the permittee is not required to comply with the requirements of 40 CFR 63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, the permittee decides to take any such capture system or add-on control device into account when demonstrating

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- compliance with the emission limitations, then at that time the permittee must comply with the requirements of 40 CFR 63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device [40 CFR 63.3174].
- c. The permittee must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month [40 CFR 63.3091(c)].
  - d. The permittee must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month [40 CFR 63.3091(d)].

**Compliance Demonstration Method for 40 CFR 63.3091 (c) and (d) [Adhesive, Sealers and Deadeners]:**

- (1) The permittee must complete the initial compliance demonstration for the initial compliance period according to the requirements of 40 CFR 63.3151. The initial compliance period begins on the applicable compliance date specified in 40 CFR 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. The permittee must determine the mass average organic HAP content of the materials used each month for each group of materials for which an emission limitation is established in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d). The initial compliance demonstration includes the calculations according to 40 CFR 63.3151 and supporting documentation showing that during the initial compliance period, the mass average organic HAP content for each group of materials was equal to or less than the applicable emission limits in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d) [40 CFR 63.3150].
- (2) The permittee must separately calculate the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d). If every individual material used within a group of materials meets the emission limit for that group of materials, the permittee may demonstrate compliance with that emission limit by documenting the name and the organic HAP content of each material used during the initial compliance period. If any individual material used within a group of materials exceeds the emission limit for that group of materials, the permittee must determine the mass average organic HAP content according to the procedures of paragraph (d) of 40 CFR 63.3151 [40 CFR 63.3151].
  - i. *Determine the mass fraction of organic HAP for each material used.* The permittee must determine the mass fraction of organic HAP for each material used during the

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

compliance period by using one of the options in paragraphs (a)(1) through (5) of 40 CFR 63.3151 [40 CFR 63.3151(a)].

A. *Method 311 (appendix A to 40 CFR part 63)*. The permittee may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of 40 CFR 63.3151 when performing a Method 311 test.

- 1) Count each organic HAP in table 5 to 40 CFR 63 subpart IIII that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in table 5 to 40 CFR 63 subpart IIII) is measured to be 0.5 percent of the material by mass, the permittee does not have to count it. Express the mass fraction of each organic HAP the permittee counts as a value truncated to four places after the decimal point (*e.g.*, 0.3791).
- 2) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.7638 truncates to 0.763).

B. *EPA Method 24 (appendix A-7 to 40 CFR part 60)*. For coatings, the permittee may use EPA Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. As an alternative to using EPA Method 24, the permittee may use ASTM D2369-10 (Reapproved 2015)<sup>e</sup> (incorporated by reference, *see* 40 CFR 63.14).

C. *Alternative method*. The permittee may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. The permittee must follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval.

D. *Information from the supplier or manufacturer of the material*. The permittee may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of 40 CFR 63.3151, such as manufacturer's formulation data, if it represents each organic HAP in table 5 to 40 CFR 63 subpart IIII that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in table 5 of 40 CFR 63 subpart IIII) is 0.5 percent of the material by mass, the permittee does not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of 40 CFR 63.3151, then the test method results will take precedence, unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

E. *Solvent blends*. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When neither test data nor manufacturer's data for solvent blends are available, the permittee may use the default values for the mass fraction of organic HAP in the solvent blends listed in Table 3 or 4 to 40 CFR 63 subpart IIII. If the permittee uses the tables, the permittee must use the values in Table 3 for all solvent blends that match Table 3 entries, and the

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

permittee may only use Table 4 if the solvent blends in the materials the permittee uses do not match any of the solvent blends in Table 3 and the permittee only knows whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 to 40 CFR 63 subpart IIII, the Method 311 results will take precedence, unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the data from Table 3 or 4 are correct.

- ii. *Determine the density of each material used.* Determine the density of each material used during the compliance period from test results using ASTM D1475-13 (incorporated by reference, *see* 40 CFR 63.14) or for powder coatings, test method A or test method B of ASTM D5965-02 (Reapproved 2013) (incorporated by reference, *see* 40 CFR 63.14), or information from the supplier or manufacturer of the material. If there is disagreement between ASTM D1475-13 test results or ASTM D5965-02 (Reapproved 2013), test method A or test method B test results and the supplier's or manufacturer's information, the test results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct [40 CFR 63.3151(b)].
- iii. *Determine the volume of each material used.* Determine the volume (liters) of each material used during each month by measurement or usage records [40 CFR 63.3151(c)].
- iv. *Determine the mass average organic HAP content for each group of materials.* Determine the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d), using Equations 1 and 2 of 40 CFR 63.3151 [40 CFR 63.3151(d)].
  - A. Calculate the mass average organic HAP content of adhesive and sealer materials other than components of the glass bonding system used in the initial compliance period using Equation 1 of 40 CFR 63.3151:

$$C_{avg,as} = \frac{\sum_{j=1}^r (Vol_{as,j})(D_{as,j})(W_{as,j})}{\sum_{j=1}^r (Vol_{as,j})(D_{as,j})} \quad (\text{Eq. 1})$$

Where:

$C_{avg, as}$  = Mass average organic HAP content of adhesives and sealer materials used, kg/kg.

$Vol_{as, j}$  = Volume of adhesive or sealer material, j, used, liters.

$D_{as, j}$  = Density of adhesive or sealer material, j, used, kg per liter.

$W_{as, j}$  = Mass fraction of organic HAP in adhesive or sealer material, j, kg/kg.

$r$  = Number of adhesive and sealer materials used.

- B. Calculate the mass average organic HAP content of deadener materials used in the initial compliance period using Equation 2 of 40 CFR 63.3151:

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$C_{avg,d} = \frac{\sum_{m=1}^s (Vol_{d,m})(D_{d,m})(W_{d,m})}{\sum_{m=1}^s (Vol_{d,m})(D_{d,m})} \quad (\text{Eq. 2})$$

Where:

$C_{avg,d}$  = Mass average organic HAP content of deadener material used, kg/kg.

$Vol_{d,m}$  = Volume of deadener material, m, used, liters.

$D_{d,m}$  = Density of deadener material, m, used, kg per liter.

$W_{d,m}$  = Mass fraction of organic HAP in deadener material, m, kg/kg.

$s$  = Number of deadener materials used.

- v. *Compliance demonstration.* The mass average organic HAP content for the compliance period must be less than or equal to the applicable emission limit in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d). The permittee must keep all records as required by 40 CFR 63.3130 and 63.3131. As part of the Notification of Compliance Status required by 40 CFR 63.3110, the permittee must submit a statement that the coating operations were in compliance with the emission limitations during the initial compliance period because the mass average organic HAP content was less than or equal to the applicable emission limits in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d), determined according to 40 CFR 63.3151 [40 CFR 63.3151(e)].
  - (3) To demonstrate continuous compliance, the mass average organic HAP content for each compliance period, determined according to 40 CFR 63.3151(a) through (d), must be less than or equal to the applicable emission limit in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in 40 CFR 63.3150 is a compliance period consisting of that month [40 CFR 63.3152(a)].
  - (4) If the mass average organic HAP emission content for any compliance period exceeds the applicable emission limit in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d), this is a deviation from the emission limitations for that compliance period and must be reported as specified in 40 CFR 63.3110(c)(6) and 63.3120(a)(5) [40 CFR 63.3152(b)].
- e. For coatings and thinners used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) [40 CFR 63.3091(e)]:
  - (1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in the demonstration of compliance for paragraph (c) of 40 CFR 63.3091.
  - (2) Deadener materials are subject to and must be included in the demonstration of compliance for paragraph (d) of 40 CFR 63.3091.
  - (3) All other coatings and thinners are subject to and must be included in the demonstration of compliance for paragraphs (a) or (b) of 40 CFR 63.3091.
- f. If the permittee's electrodeposition primer system meets the requirements of either paragraph (a) or (b) of 40 CFR 63.3092, the permittee may choose to comply with the

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

emission limits of 40 CFR 63.3090(b) or 40 CFR 63.3091(b) instead of the emission limits of 40 CFR 63.3090(a) or 40 CFR 63.3091(a) [40 CFR 63.3092].

(1) Each individual material added to the electrodeposition primer system contains no more than [40 CFR 63.3092(a)]:

i. 1.0 percent by weight of any organic HAP; and

(2) Emissions from all bake ovens used to cure electrodeposition primers must be captured and ducted to a control device having a destruction or removal efficiency of at least 95 percent [40 CFR 63.3092(b)].

g. The permittee shall be in compliance with the emission limitations in 40 CFR 63.3090 and 63.3091 at all times, as determined on a monthly basis [40 CFR 63.3100(a)].

**3. Testing Requirements:**

**Compliance Demonstration Method for 40 CFR 63.3091 (a) [Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive]:**

a. *Determine the volume fraction of coating solids for each coating.* The permittee must determine the volume fraction of coating solids (liter of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (f)(1) and (2) of 40 CFR 63.3161. For electrodeposition primer operations, the volume fraction of solids must be determined for each material added to the tank or system during each month. If test results obtained according to paragraph (f)(1) of 40 CFR 63.3161 do not agree with the information obtained under paragraph (f)(2) of 40 CFR 63.3161, the test results will take precedence unless, after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct [40 CFR 63.3161(f)].

(1) *ASTM Method D2697-03 (Reapproved 2014) or ASTM Method D6093-97 (Reapproved 2016).* The permittee may use ASTM D2697-03 (Reapproved 2014) (incorporated by reference, *see* 40 CFR 63.14), or ASTM D6093-97 (Reapproved 2016) (incorporated by reference, *see* 40 CFR 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Information from the supplier or manufacturer of the material.* The permittee may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

b. *Determine the transfer efficiency for each coating.* The permittee must determine the transfer efficiency for each primer-surfacer and topcoat coating, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) using ASTM D5066-91 (Reapproved 2017) (incorporated by reference, *see* 40 CFR 63.14) or the guidelines presented in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14). The permittee may conduct transfer efficiency testing on representative coatings and for representative spray

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

booths as described in “Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018. The permittee may assume 100-percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, the permittee may assume 40-percent transfer efficiency for air atomized spray and 55-percent transfer efficiency for electrostatic spray and high volume, low pressure spray. For blackout, chip resistant edge primer, interior color, in-line repair, lower body anti-chip coatings, or underbody anti-chip coatings, the permittee may assume 40-percent transfer efficiency for air atomized spray, 55-percent transfer efficiency for electrostatic spray and high volume-low pressure spray, and 80-percent transfer efficiency for airless spray [40 CFR 63.3161(g)].

- c. The permittee must demonstrate continuous compliance with each operating limit required by 40 CFR 63.3093 that applies to the permittee, as specified in table 1 to 40 CFR 63 subpart IIII, and the permittee must conduct performance tests as specified in paragraph (c)(3) of 40 CFR 63.3163 [40 CFR 63.3163(c)].
  - (1) If an operating parameter is out of the allowed range specified in Table 1 to 40 CFR 63 subpart IIII, this is a deviation from the operating limit that must be reported as specified in 40 CFR 63.3110(c)(6) and 63.3120(a)(6).
  - (2) If an operating parameter deviates from the operating limit specified in Table 1 to 40 CFR 63 subpart IIII, then the permittee must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation except as provided in 40 CFR 63.3161(p).
  - (3) Except for solvent recovery systems for which the permittee conducts liquid-liquid material balances according to 40 CFR 63.3161(k) for controlled coating operations, the permittee must conduct periodic performance tests of add-on controls and establish the operating limits required by 40 CFR 63.3093 within 5 years following the previous performance test. The permittee must conduct the first periodic performance test before July 8, 2023, unless the permittee has already required to complete periodic performance tests as a requirement of renewing the facility's operating permit under 40 CFR part 70 or 40 CFR part 71 and have conducted a performance test on or after July 8, 2022. Thereafter the permittee must conduct a performance test no later than 5 years following the previous performance test. Operating limits must be confirmed or reestablished during each performance test. For any control device for which the permittee is using the catalytic oxidizer control option at 40 CFR 63.3167(b) and following the catalyst maintenance procedures in 40 CFR 63.3167(b)(6), the permittee is not required to conduct periodic control device performance testing as specified by this paragraph. For any control device for which instruments are used to continuously measure organic compound emissions, the permittee is not required to conduct periodic control device performance testing as specified by this paragraph. The requirements of this paragraph do not apply to measuring emission capture system efficiency.
- d. The permittee must conduct each applicable performance test required by 40 CFR 63.3160, 63.3163, and 63.3171 according to the requirements in 40 CFR 63.7(e)(1) and under the conditions in 40 CFR 63.3164 unless the permittee obtains a waiver of the performance test according to the provisions in 40 CFR 63.7(h) [40 CFR 63.3164(a)].

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (1) *Representative coating operation operating conditions.* The permittee must conduct the performance test under representative operating conditions for the coating operation. On and after January 5, 2021, operations during periods of startup, shutdown, or nonoperation do not constitute representative conditions for purposes of conducting a performance test. The owner or operator may not conduct performance tests during periods of malfunction. The permittee must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation. Upon request, the permittee must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
  - (2) *Representative emission capture system and add-on control device operating conditions.* The permittee must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. The permittee must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.
- e. The permittee must conduct each performance test of an emission capture system according to the requirements in 40 CFR 63.3165. The permittee must conduct each performance test of an add-on control device according to the requirements in 40 CFR 63.3166 [40 CFR 63.3164(b)].
- f. The permittee must use the procedures and test methods in 40 CFR 63.3165 to determine capture efficiency as part of the performance test required by 40 CFR 63.3160 and 63.3163. For purposes of 40 CFR 63 subpart IIII, a spray booth air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided the permittee demonstrates that the direction of air movement across the interface between the spray booth air seal and the spray booth is into the spray booth. For purposes of 40 CFR 63 subpart IIII, a bake oven air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided the permittee demonstrates that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. The permittee may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations as part of showing that the permittee's capture system is a PTE or conducting a capture efficiency test using a temporary total enclosure. The permittee cannot count air flowing from a spray booth air seal into a spray booth as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless the permittee elects to treat that spray booth air seal as a natural draft opening. The permittee cannot count air flowing from a bake oven air seal into a bake oven as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless the permittee elects to treat that bake oven air seal as a natural draft opening [40 CFR 63.3165].
  - (1) *Assuming 100 percent capture efficiency.* The permittee may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of 40 CFR 63.3165 are met [40 CFR 63.3165(a)]:



## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.
  - ii. All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off and coating curing and drying occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.
- (2) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of 40 CFR 63.3165, then the permittee must use one of the five procedures described in paragraphs (c) through (g) of 40 CFR 63.3165 to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of 40 CFR 63.3165, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time [40 CFR 63.3165(b)].
- (3) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of 40 CFR 63.3165 to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol [40 CFR 63.3165(c)].
- i. Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.
  - ii. Use Method 204A or F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating and thinner used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.
  - iii. Use Equation 1 of 40 CFR 63.3165 to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^N (TVH_i)(Vol_i)(D_i) \quad (Eq. 1)$$

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Where:

TVH<sub>i</sub> = Mass fraction of TVH in coating or thinner, i, used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol<sub>i</sub> = Total volume of coating or thinner, i, used in the coating operation during the capture efficiency test run, liters.

D<sub>i</sub> = Density of coating or thinner, i, kg material per liter material.

n = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

- iv. Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

- A. Use Method 204D if the enclosure is a temporary total enclosure.

- B. Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

- v. For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of 40 CFR 63.3165:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (Eq. 2)$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>used</sub> = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

TVH<sub>uncaptured</sub> = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

- vi. Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.
- (4) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of 40 CFR 63.3165 to measure emission capture system efficiency using the gas-to-gas protocol [40 CFR 63.3165(d)].
    - i. Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

- ii. Use Method 204B or C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.
  - A. The sampling points for the Method 204B or C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.
  - B. If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously or sequentially measured in each duct, and the total emissions entering the add-on control device must be determined.
- iii. Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.
  - A. Use Method 204D if the enclosure is a temporary total enclosure.
  - B. Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.
- iv. For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of 40 CFR 63.3165:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>captured</sub> = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

TVH<sub>uncaptured</sub> = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

- v. Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### (5) *Panel testing to determine the capture efficiency of flash-off or bake oven emissions.*

The permittee may conduct panel testing to determine the capture efficiency of flash-off or bake oven emissions using ASTM D5087-02 (incorporated by reference, *see* 40 CFR 63.14), ASTM D6266-00a (Reapproved 2017) (incorporated by reference, *see* 40 CFR 63.14), or the guidelines presented in “Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14). The permittee may conduct panel testing on representative coatings as described in “Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018. The results of these panel testing procedures are in units of mass of VOC per volume of coating solids deposited and must be converted to a percent value for use in 40 CFR 63 subpart III. If the permittee panel tests representative coatings, then the permittee may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of 40 CFR 63.3165; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the volume of coating solids deposited per volume of coating used and for the mass of VOC per volume of coating, and average values for the group of coatings for volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of 40 CFR 63.3165. If the permittee panel tests each coating, then the permittee must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density, and mass fraction VOC in Equations 4 through 6 of 40 CFR 63.3165. Panel test results expressed in units of mass of VOC per volume of coating solids deposited must be converted to percent capture efficiency using Equation 4 of 40 CFR 63.3165. An alternative for using panel test results expressed in units of mass of VOC per mass of coating solids deposited is presented in paragraph (e)(3) of 40 CFR 63.3165 [40 CFR 63.3165(e)].

- i. Calculate the volume of coating solids deposited per volume of coating used for coating, i, or the composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 5 of 40 CFR 63.3165:

$$V_{sdep,i} = (V_{s,i})(TE_{c,i}) \quad (Eq. 5)$$

Where:

$V_{sdep,i}$  = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

test is conducted, liter of coating solids deposited per liter of coating used.

$V_{s, i}$  = Volume fraction of coating solids for coating, i, or average volume fraction of coating solids for the group of coatings including coating, i, liter coating solids per liter coating, determined according to 40 CFR 63.3161(f).

$TE_{c, i}$  = Transfer efficiency of coating, i, or average transfer efficiency for the group of coatings including coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to 40 CFR 63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

- ii. Calculate the mass of VOC per volume of coating for coating, i, or the composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg, using Equation 6 of 40 CFR 63.3165:

$$VOC_i = (D_{a, i}) (W_{voc, a, i}) \quad (Eq. 6)$$

Where:

$VOC_i$  = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg VOC per liter coating.

$D_{c, i}$  = Density of coating, i, or average density of the group of coatings, including coating, i, kg coating per liter coating, density determined according to 40 CFR 63.3151(b).

$W_{voc, c, i}$  = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings, including coating, i, kg VOC per kg coating, determined by EPA Method 24 (appendix A-7 to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in Section 9 of "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14).

- iii. As an alternative, the permittee may choose to express the results of their panel tests in units of mass of VOC per mass of coating solids deposited and convert such results to a percent using Equation 7 of 40 CFR 63.3165. If the permittee panel tests representative coatings, then the permittee may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC,

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

transfer efficiency, and mass fraction solids in Equations 7 and 8 of 40 CFR 63.3165; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the mass of coating solids deposited per mass of coating used and average values for the mass of VOC per volume of coating, average values for the group of coatings for mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of 40 CFR 63.3165. If the permittee panel tests each coating, then the permittee must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of 40 CFR 63.3165. Panel test results expressed in units of mass of VOC per mass of coating solids deposited must be converted to percent capture efficiency using Equation 7 of 40 CFR 63.3165:

$$CE_i = (P_{m,i})(W_{dep,i})(100)/(W_{voc,i}) \quad (\text{Eq. 7})$$

Where:

$CE_i$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

$P_{m,i}$  = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per kg of coating solids deposited.

$W_{dep,i}$  = Mass of coating solids deposited per mass of coating used for coating, i, or composite mass of coating solids deposited per mass of coating used for the group of coatings, including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg of solids deposited per kg of coating used, from Equation 8 of 40 CFR 63.3165.

$W_{voc,i}$  = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings, including coating, i, kg VOC per kg coating, determined by EPA Method 24 (appendix A-7 to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in Section 9 of "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14).

- iv. Calculate the mass of coating solids deposited per mass of coating used for each coating or the composite mass of coating solids deposited per mass of coating used for each group of coatings used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 8 of 40 CFR 63.3165:

$$W_{dep,i} = (W_{s,i})(TE_{e,i}) \quad (\text{Eq. 8})$$

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

Where:

$W_{sdep, i}$  = Mass of coating solids deposited per mass of coating used for coating,  $i$ , or composite mass of coating solids deposited per mass of coating used for the group of coatings including coating,  $i$ , in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg coating solids deposited per kg coating used.

$W_{s, i}$  = Mass fraction of coating solids for coating,  $i$ , or average mass fraction of coating solids for the group of coatings including coating,  $i$ , kg coating solids per kg coating, determined by EPA Method 24 (appendix A-7 to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14).

$TE_{c, i}$  = Transfer efficiency of coating,  $i$ , or average transfer efficiency for the group of coatings including coating,  $i$ , in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to 40 CFR 63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate used for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(6) *Alternative capture efficiency procedure.* As an alternative to the procedures specified in paragraphs (c) through (e) and (g) of 40 CFR 63.3165, the permittee may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of 40 CFR Part 63 [40 CFR 63.3165(f)].

(7) *Panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings.* The permittee may conduct panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings using the procedure in appendix A to 40 CFR 63 subpart IIII [40 CFR 63.3165(g)].

g. The permittee must use the procedures and test methods in 40 CFR 63.3166 to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by 40 CFR 63.3160, 40 CFR 63.3163, or 40 CFR 63.3171. The permittee must conduct three test runs as specified in 40 CFR 63.7(e)(3), and each test run must last at least 1 hour [40 CFR 63.3166].

(1) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of 40 CFR 63.3166 [40 CFR 63.3166(a)].

- i. Use EPA Method 1 or 1A of appendix A-1 to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.
- ii. Use EPA Method 2, 2A, 2C, 2D, or 2F of appendix A-1, or 2G of appendix A-2 to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.
- iii. Use EPA Method 3, 3A, or 3B of appendix A-2 to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. The ANSI/ASME PTC 19.10-

## SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 1981 (incorporated by reference, *see* 40 CFR 63.14), may be used as an alternative to EPA Method 3B.
- iv. Use EPA Method 4 of appendix A-3 to 40 CFR part 60 to determine stack gas moisture.
  - v. Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.
- (2) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either EPA Method 25 or 25A of appendix A-7 to 40 CFR part 60, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.3166. The permittee must use the same method for both the inlet and outlet measurements [40 CFR 63.3166(b)].
- i. Use Method 25 if the add-on control device is an oxidizer and the permittee expects the total gaseous organic concentration as carbon to be more than 50 parts per million by volume (ppmv) at the control device outlet.
  - ii. Use Method 25A if the add-on control device is an oxidizer and the permittee expects the total gaseous organic concentration as carbon to be 50 ppmv or less at the control device outlet.
  - iii. Use Method 25A if the add-on control device is not an oxidizer.
  - iv. The permittee may use EPA Method 18 of appendix A-6 to 40 CFR part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.
- (3) If two or more add-on control devices are used for the same emission stream, then the permittee must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, the permittee must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator [40 CFR 63.3166(c)].
- (4) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of 40 CFR 63.3166. If there is more than one inlet or outlet to the add-on control device, the permittee must calculate the total gaseous organic mass flow rate using Equation 1 of 40 CFR 63.3166 for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions [40 CFR 63.3166(d)].

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \quad (\text{Eq. 1})$$

Where:

$M_f$  = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

$C_c$  = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.

$Q_{sd}$  = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters per hour (dscm/h).



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m<sup>3</sup>) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

- (5) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of 40 CFR 63.3166 [40 CFR 63.3166(e)]:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} (100) \quad (\text{Eq. 2})$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M<sub>fi</sub> = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of 40 CFR 63.3166, kg/h.

M<sub>fo</sub> = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of 40 CFR 63.3166, kg/h.

- (6) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of 40 CFR 63.3166 [40 CFR 63.3166(f)].
- h. During the performance tests required by 40 CFR 63.3160, 63.3163, and 63.3171 (and described in 40 CFR 63.3164 and 63.3166), the permittee must establish the operating limits required by 40 CFR 63.3093 according to 40 CFR 63.3167, unless the permittee has received approval for alternative monitoring and operating limits under 40 CFR 63.8(f) as specified in 40 CFR 63.3093 [40 CFR 63.3167].
- (1) *Thermal oxidizers*. If the permittee's add-on control device is a thermal oxidizer, establish the operating limit according to paragraphs (a)(1) through (3) of 40 CFR 63.3167 [40 CFR 63.3167(a)].
- During the performance test, the permittee must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. The permittee must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.
  - Use all valid data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum 3-hour average operating limit for the permittee's thermal oxidizer.
  - As an alternative, if the latest operating permit issued before April 26, 2007, for the thermal oxidizer at the permittee's facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then the permittee may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at the affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If the permittee does not have an operating permit for the thermal oxidizer at the facility and the latest construction permit issued before April 26, 2007, for

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

the thermal oxidizer at the facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then the permittee may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at the affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If the permittee uses 28 degrees Celsius (50 degrees Fahrenheit) below the combustion temperature maintained during the performance test as the minimum operating limit for a thermal oxidizer, then the permittee must keep the combustion temperature set point on that thermal oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that thermal oxidizer and the average combustion temperature maintained during the performance test for that thermal oxidizer.

- (2) *Concentrators.* If the permittee's add-on control device includes a concentrator, the permittee must establish operating limits for the concentrator according to paragraphs (e)(1) and (2) of 40 CFR 63.3167 [40 CFR 63.3167(e)].
  - i. During the performance test, the permittee must monitor and record the desorption gas inlet temperature at least once every 15 minutes during each of the three runs of the performance test.
  - ii. Use all valid data collected during the performance test to calculate and record the average desorption gas inlet temperature. The minimum operating limit for the concentrator is 8 degrees Celsius (15 degrees Fahrenheit) below the average desorption gas inlet temperature maintained during the performance test for that concentrator. The permittee must keep the set point for the desorption gas inlet temperature no lower than 6 degrees Celsius (10 degrees Fahrenheit) below the lower of that set point during the performance test for that concentrator and the average desorption gas inlet temperature maintained during the performance test for that concentrator.
- (3) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of 40 CFR 63.3165(a) and that is not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth, establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of 40 CFR 63.3167. The operating limit for a PTE is specified in Table 1 to 40 CFR 63 subpart IIII [40 CFR 63.3167(f)].
  - i. During the capture efficiency determination required by 40 CFR 63.3160 and 63.3163 and described in 40 CFR 63.3164 and 63.3165, the permittee must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in the permittee's emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.
  - ii. Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device, using all valid data. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Compliance Demonstration Method for 40 CFR 63.3091 (b) [Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive and Separate Electrodeposition Primer]:**

- a. *Capture of electrodeposition bake oven emissions.* The permittee must show that the electrodeposition bake oven meets the criteria in sections 5.3 through 5.5 of Method 204 of appendix M to 40 CFR part 51 and directs all of the exhaust gases from the bake oven to an add-on control device. For purposes of this showing, an electrodeposition bake oven air seal is not considered a natural draft opening provided the permittee demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. The permittee may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations. The permittee cannot count air flowing from an electrodeposition bake oven air seal into an electrodeposition bake oven as air flowing through a natural draft opening unless the permittee elects to treat that electrodeposition bake oven air seal as a natural draft opening [40 CFR 63.3171(f)].
- b. *Control of electrodeposition bake oven emissions.* Determine the efficiency of each control device on each electrodeposition bake oven using the procedures in 40 CFR 63.3164 and 63.3166 [40 CFR 63.3171(g)].

**4. Specific Monitoring Requirements:**

See Subsection 2. Emission Limitations Compliance Demonstration Methods.

**5. Specific Recordkeeping Requirements:**

- a. Copies of the current work practice plans developed in accordance with paragraphs (b) and (c) of 40 CFR 63.3094, as well as plans developed within the preceding 5 years must be available on-site for inspection and copying by the permitting authority [40 CFR 63.3094(f)].
- b. The permittee must collect and keep records of the data and information specified in 40 CFR 63.3130. Failure to collect and keep these records is a deviation from the applicable standard.
  - (1) A copy of each notification and report that the permittee submitted to comply with 40 CFR 63 subpart IIII, and the documentation supporting each notification and report [40 CFR 63.3130(a)].
  - (2) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density for each thinner, and the mass fraction of organic HAP for each cleaning material. If the permittee conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, the permittee must keep a copy of the complete test report. If the permittee uses information provided to the permittee by the manufacturer or supplier of the material that was based on testing, the permittee must keep the summary sheet of results provided to the permittee by the manufacturer or supplier. If the permittee uses the results of an analysis conducted by an outside testing lab, the permittee must keep a

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

copy of the test report. The permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier [40 CFR 63.3130(b)].

- (3) For each month, the records specified in paragraphs (c)(1) through (6) of 40 CFR 63.3130 [40 CFR 63.3130(c)].
- i. For each coating used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each coating, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids.
  - ii. For each thinner used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each thinner, except for thinner used for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, and the density.
  - iii. For each deadener material and for each adhesive and sealer material, a record of the mass used in each month and the mass organic HAP content.
  - iv. A record of the calculation of the organic HAP emission rate for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) for each month if subject to the emission limit of 40 CFR 63.3090(a) or 40 CFR 63.3091(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14), are used, the permittee must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.
  - v. A record of the calculation of the organic HAP emission rate for primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) for each month if subject to the emission limit of 40 CFR 63.3090(b) or 40 CFR 63.3091(b), and a record of the weight fraction of each organic HAP in each material added to the electrodeposition primer system if subject to the limitations of 40 CFR 63.3092(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (incorporated by reference, *see* 40 CFR 63.14) are used, the permittee must keep records of all data input to this protocol.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

- vi. A record, for each month, of the calculation of the average monthly mass organic HAP content of:
  - A. Sealers and adhesives; and
  - B. Deadeners.
- (4) A record of the name and volume of each cleaning material used during each month [40 CFR 63.3130(d)].
- (5) A record of the mass fraction of organic HAP for each cleaning material used during each month [40 CFR 63.3130(e)].
- (6) A record of the density for each cleaning material used during each month [40 CFR 63.3130(f)].
- (7) Before January 5, 2021, a record of the date, time, and duration of each deviation, and for each deviation, a record of whether the deviation occurred during a period of SSM. On and after January 5, 2021, for each deviation from an emission limitation, operating limit, or work practice plan reported under 40 CFR 63.3120(a)(5) through (9), a record of the information specified in paragraphs (g)(1) through (4) of 40 CFR 63.3130, as applicable [40 CFR 63.3130(g)].
  - i. The date, time, and duration of the deviation, and for each deviation, the information as reported under 40 CFR 63.3120(a)(5) through (9).
  - ii. A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under 40 CFR 63.3120(a)(5) through (9).
  - iii. An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in 40 CFR 63.3090(a) through (d) or 40 CFR 63.3091(a) through (d) or any applicable operating limit in table 1 to 40 CFR 63 subpart III, and a description of the method used to calculate the estimate, as reported under 40 CFR 63.3120(a)(5) through (9).
  - iv. A record of actions taken to minimize emissions in accordance with 40 CFR 63.3100(d) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- (8) Before January 5, 2021, the records required by 40 CFR 63.6(e)(3)(iii) through (v) related to SSM. On and after January 5, 2021, the provisions of this paragraph no longer apply [40 CFR 63.3130(h)].
- (9) For each capture system that is a PTE, the data and documentation the permittee used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in 40 CFR 63.3165(a) [40 CFR 63.3130(i)].
- (10) For each capture system that is not a PTE, the data and documentation the permittee used to determine capture efficiency according to the requirements specified in 40 CFR 63.3164 and 63.3165(b) through (g), including the records specified in paragraphs (j)(1) through (4) of 40 CFR 63.3130 that apply to the permittee [40 CFR 63.3130(j)].
  - i. *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH), as measured by Method 204A or F of appendix M to 40 CFR part 51, for each material

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.
- ii. *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system, as measured by Method 204B or C of appendix M to 40 CFR part 51, at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.
  - iii. *Records for panel tests.* Records needed to document a capture efficiency determination using a panel test as described in 40 CFR 63.3165(e) and (g), including a copy of the test report and calculations performed to convert the panel test results to percent capture efficiency values.
  - iv. *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol, as specified in 40 CFR 63.3165(f), if applicable.
- (11) The records specified in paragraphs (k)(1) and (2) of 40 CFR 63.3130 for each add-on control device organic HAP destruction or removal efficiency determination as specified in 40 CFR 63.3166[40 CFR 63.3130(k)].
- i. Records of each add-on control device performance test conducted according to 40 CFR 63.3164 and 63.3166.
  - ii. Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.
- (12) Records of the data and calculations the permittee used to establish the emission capture and add-on control device operating limits as specified in 40 CFR 63.3167 and to document compliance with the operating limits as specified in Table 1 to 40 CFR 63 subpart IIII [40 CFR 63.3130(l)].
- (13) Records of the data and calculations the permittee used to determine the transfer efficiency for primer-surfacer and topcoat coatings and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) [40 CFR 63.3130(m)].
- (14) A record of the work practice plans required by 40 CFR 63.3094(b) and (c) and documentation that the permittee is implementing the plans on a continuous basis. Appropriate documentation may include operational and maintenance records, records of documented inspections, and records of internal audits [40 CFR 63.3130(n)].

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (15) For each add-on control device and for each continuous parameter monitoring system, a copy of the equipment operating instructions must be maintained on-site for the life of the equipment in a location readily available to plant operators and inspectors. The permittee may prepare their own equipment operating instructions, or they may be provided to the permittee by the equipment supplier or other third party [40 CFR 63.3130(o)].
- (16) On and after January 5, 2021, any records required to be maintained by 40 CFR 63 subpart IIII that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation [40 CFR 63.3130(p)].
- c. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database. On and after January 5, 2021, any records required to be maintained by 40 CFR 63 subpart IIII that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation [40 CFR 63.3131(a)].
- d. Except as provided in 40 CFR 63.3130(o), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, as specified in 40 CFR 63.10(b)(1) [40 CFR 63.3131(b)].
- e. Except as provided in 40 CFR 63.3130(o), the permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The permittee may keep the records off site for the remaining 3 years [40 CFR 63.3131(c)].

**6. Specific Reporting Requirements:**

- a. ***Notification of compliance status.*** If the permittee has an existing source, the permittee must submit the Notification of Compliance Status required by 40 CFR 63.9(h) no later than 30 days following the end of the initial compliance period described in 40 CFR 63.3160. If the permittee has a new source, the permittee must submit the Notification of Compliance Status required by 40 CFR 63.9(h) no later than 60 days after the first day of the first full month following completion of all applicable performance tests. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (12) of 40 CFR 63.3110 and in 40 CFR 63.9(h) [40 CFR 63.3110(c)].
- (1) Company name and address.
- (2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- (3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in 40 CFR 63.3160 that applies to the permittee's affected source.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (4) Identification of the compliance option specified in 40 CFR 63.3090(a) or (b) or 40 CFR 63.3091(a) or (b) that the permittee used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) in the affected source during the initial compliance period.
- (5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.
- (6) If the permittee had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of 40 CFR 63.3110.
  - i. A description and statement of the cause of the deviation.
  - ii. If the permittee failed to meet any of the applicable emission limits in 40 CFR 63.3090 or 40 CFR 63.3091, include all the calculations the permittee used to determine the applicable emission rate or applicable average organic HAP content for the emission limit(s) that the permittee failed to meet. The permittee does not need to submit information provided by the materials suppliers or manufacturers, or test reports.
- (7) All data and calculations used to determine the monthly average mass of organic HAP emitted per volume of applied coating solids from:
  - i. The combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) if the permittee was eligible for and chose to comply with the emission limits of 40 CFR 63.3090(b) or 40 CFR 63.3091(b); or
  - ii. The combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c).
- (8) All data and calculations used to determine compliance with the separate limits for electrodeposition primer in 40 CFR 63.3092(a) or (b) if the permittee was eligible for and chose to comply with the emission limits of 40 CFR 63.3090(b) or 40 CFR 63.3091(b).
- (9) All data and calculations used to determine the monthly mass average HAP content of materials subject to the emission limits of 40 CFR 63.3090(c) or (d) or the emission limits of 40 CFR 63.3091(c) or (d).
- (10) All data and calculations used to determine the transfer efficiency for primer-surfacer and topcoat coatings, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c).
- (11) The permittee must include the information specified in paragraphs (c)(11)(i) through (iii) of 40 CFR 63.3110.
  - i. For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a



**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the procedure followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If the permittee uses the data quality objective (DQO) or lower confidence limit (LCL) approach, the permittee must also include the statistical calculations to show they meet the DQO or LCL criteria in appendix A to subpart KK of 40 CFR Part 63. The permittee does not need to submit complete test reports.

- ii. A summary of the results of each add-on control device performance test. The permittee does not need to submit complete test reports unless requested.
  - iii. A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.
- (12) A statement of whether or not the permittee developed and implemented the work practice plans required by 40 CFR 63.3094(b) and (c).

- b. ***Semiannual compliance reports.*** The permittee must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (9) of 40 CFR 63.3120. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (a)(2) of 40 CFR 63.3120 [40 CFR 63.3120(a)].

- (1) ***Dates.*** Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of 40 CFR 63.3120.

- i. The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in 40 CFR 63.3160 that applies to the permittee's affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.
  - ii. Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
  - iii. Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
  - iv. For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of 40 CFR 63.3120.
- (2) ***Inclusion with title V report.*** If the permittee has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, the permittee must report all deviations as defined in 40 CFR 63 subpart IIII in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If the permittee submits a semiannual compliance report pursuant to 40 CFR 63.3120 along with, or as part of,

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice in 40 CFR 63 subpart IIII, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the permittee may have to report deviations from permit requirements to the permitting authority.
- (3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (iv) of 40 CFR 63.3120, and the information specified in paragraphs (a)(4) through (9) and (c)(1) of 40 CFR 63.3120 that are applicable to the permittee's affected source.
- i. Company name and address.
  - ii. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
  - iii. Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.
  - iv. Identification of the compliance option specified in 40 CFR 63.3090(b) or 40 CFR 63.3091(b) that the permittee used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) in the affected source during the initial compliance period.
- (4) *No deviations.* If there were no deviations from the emission limits, operating limits, or work practices in 40 CFR 63.3090, 63.3091, 63.3092, 63.3093, and 63.3094 that apply to the permittee, the semiannual compliance report must include a statement that there were no deviations from the applicable emission limitations during the reporting period. If the permittee used control devices to comply with the emission limits, and there were no periods during which the CPMS were out of control as specified in 40 CFR 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out of control during the reporting period.
- (5) *Deviations: adhesive, sealer, and deadener.* On and after January 5, 2021, if there was a deviation from the applicable emission limits in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d), the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (v) of 40 CFR 63.3120.
- i. The beginning and ending dates of each month during which the monthly average organic HAP content exceeded the applicable emission limit in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d).
  - ii. The volume and organic HAP content of each material used that is subject to the applicable organic HAP content limit.
  - iii. The calculation used to determine the average monthly organic HAP content for the month in which the deviation occurred.
  - iv. The reason for the deviation (including unknown cause, if applicable).

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- v. On and after January 5, 2021, the number of deviations and, for each deviation, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over the applicable emission limit in 40 CFR 63.3090(c) and (d) or 40 CFR 63.3091(c) and (d), and a description of the method used to estimate the emissions.
- (6) *Deviations:* combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive, or combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c). On and after January 5, 2021, if there was a deviation from the applicable emission limits in 40 CFR 63.3090(a) or (b) or 40 CFR 63.3091(a) or (b) or the applicable operating limit(s) in table 1 to 40 CFR 63 subpart IIII, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (xv) of 40 CFR 63.3120.
- i. The beginning and ending dates of each month during which the monthly organic HAP emission rate from combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) exceeded the applicable emission limit in 40 CFR 63.3090(a) or 40 CFR 63.3091(a); or the monthly organic HAP emission rate from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to 40 CFR 63.3082(c) exceeded the applicable emission limit in 40 CFR 63.3090(b) or 40 CFR 63.3091(b).
  - ii. The calculation used to determine the monthly organic HAP emission rate in accordance with 40 CFR 63.3161 or 40 CFR 63.3171. The permittee does not need to submit the background data supporting these calculations, for example information provided by materials suppliers or manufacturers, or test reports.
  - iii. The date and time that each malfunction of the capture system or add-on control devices used to control emissions from these operations started and stopped.
  - iv. A brief description of the CPMS.
  - v. The date of the latest CPMS certification or audit.
  - vi. On and after January 5, 2021, for each instance that the CPMS was inoperative, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including unknown cause) for the CPMS being inoperative; and descriptions of corrective actions taken.
  - vii. On and after January 5, 2021, for each instance that the CPMS was out of control, as specified in 40 CFR 63.8(c)(7), the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- viii. On and after January 5, 2021, the date, time, and duration of each deviation from an operating limit in table 1 to 40 CFR 63 subpart IIII; and the date, time, and duration of each bypass of an add-on control device.
  - ix. A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to 40 CFR 63 subpart IIII and the bypass of each add-on control device during the semiannual reporting period.
  - x. On and after January 5, 2021, a breakdown of the total duration of the deviations from each operating limit in table 1 to 40 CFR 63 subpart IIII and bypasses of each add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.
  - xi. A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.
  - xii. A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.
  - xiii. On and after January 5, 2021, for deviations from the work practice standards, the number of deviations, and, for each deviation, the information in paragraphs (a)(6)(xiii)(A) and (B) of 40 CFR 63.3120.
    - A. A description of the deviation, the date, time, and duration of the deviation; and the actions the permittee took to minimize emissions in accordance with 40 CFR 63.3100(d).
    - B. A list of the affected sources or equipment for which a deviation occurred, the cause of the deviation (including unknown cause, if applicable), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
  - xiv. On and after January 5, 2021, for deviations from an emission limitation in 40 CFR 63.3090(a) or (b) or 40 CFR 63.3091(a) or (b) or operating limit in table 1 of 40 CFR 63 subpart IIII, a statement of the cause of each deviation (including unknown cause, if applicable).
  - xv. On and after January 5, 2021, for each deviation from an emission limitation in 40 CFR 63.3090(a) or (b), or 40 CFR 63.3091(a) or (b), or operating limit in table 1 to 40 CFR 63 subpart IIII, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of each regulated pollutant emitted over any emission limit in 40 CFR 63.3090(a) or (b) or 40 CFR 63.3091(a) or (b), and a description of the method used to estimate the emissions.
- (7) *Deviations: Separate electrodeposition primer organic HAP content limit.* On and after January 5, 2021, if the permittee used the separate electrodeposition primer organic HAP content limits in 40 CFR 63.3092(a), and there was a deviation from these limits, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (iv) of 40 CFR 63.3120.
- i. Identification of each material used that deviated from the emission limit, and the date, time, and duration each was used.
  - ii. The determination of mass fraction of each organic HAP for each material identified in paragraph (a)(7)(i) of 40 CFR 63.3120. The permittee does not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufacturers, or test reports.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- iii. A statement of the cause of each deviation (including unknown case, if applicable).
  - iv. On and after January 5, 2021, the number of deviations, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in 40 CFR 63.3092(a), and a description of the method used to estimate the emissions.
- (8) *Deviations: Separate electrodeposition primer bake oven capture and control limitations.* On and after January 5, 2021, if the permittee used the separate electrodeposition primer bake oven capture and control limitations in 40 CFR 63.3092(b), and there was a deviation from the limitations in 40 CFR 63.3092(b) or the applicable operating limit in table 1 to 40 CFR 63 subpart IIII, the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xiv) of 40 CFR 63.3120.
- i. The beginning and ending dates of each month during which there was a deviation from the separate electrodeposition primer bake oven capture and control limitations in 40 CFR 63.3092(b).
  - ii. The date and time that each malfunction of the capture systems or control devices used to control emissions from the electrodeposition primer bake oven started and stopped.
  - iii. A brief description of the CPMS.
  - iv. The date of the latest CPMS certification or audit.
  - v. On and after January 5, 2021, for each instance that the CPMS was inoperative, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including unknown cause) for the CPMS being inoperative; and descriptions of corrective actions taken.
  - vi. On and after January 5, 2021, for each instance that the CPMS was out of control, as specified in 40 CFR 63.8(c)(7), the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.
  - vii. On and after January 5, 2021, the date, time, and duration of each deviation from an operating limit in table 1 to 40 CFR 63 subpart IIII; and the date, time, and duration of each bypass of an add-on control device.
  - viii. A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to 40 CFR 63 subpart IIII and the bypasses of each add-on control device during the semiannual reporting period.
  - ix. On and after January 5, 2021, a breakdown of the total duration of the deviations from each operating limit in table 1 to 40 CFR 63 subpart IIII and bypasses of each add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.
  - x. A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.
  - xi. A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.
  - xii. A statement of the cause of each deviation (including unknown cause, if applicable).

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (9) *Deviations: Work practice plans.* On and after January 5, 2021, if there were deviations from an applicable work practice plan developed in accordance with 40 CFR 63.3094(b) or (c), the semiannual compliance report must contain the number of deviations, and, for each deviation, the information in paragraphs (a)(9)(i) through (iii) of 40 CFR 63.3120.
- i. On and after January 5, 2021, the date, time, and duration of the deviation.
  - ii. On and after January 5, 2021, the nature of the deviation, including a list of the affected sources or equipment for which the deviation occurred, and the cause of the deviation (including unknown cause, if applicable).
  - iii. The corrective action(s) taken to bring the applicable work practices into compliance with the work practice plan.
- c. ***Performance test reports.*** If the permittee uses add-on control devices, the permittee must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in 40 CFR 63.10(d)(2). the permittee must submit reports of transfer efficiency tests no later than 60 days after completing the tests as specified in 40 CFR 63.10(d)(2) [40 CFR 63.3120(b)].
- d. ***Performance test reports.*** On and after January 5, 2021, the permittee must submit the results of the performance test required in paragraph (b) of 40 CFR 63.3120 following the procedure specified in paragraphs (d)(1) through (3) of 40 CFR 63.3120 [40 CFR 63.3120(d)].
- (1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, the permittee must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>)). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.
  - (2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, the permittee must submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 63.13, unless the Administrator agrees to or specifies an alternate reporting method.
  - (3) If the permittee claims that some of the performance test information being submitted under paragraph (c)(1) of 40 CFR 63.3120 is Confidential Business Information (CBI), the permittee must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (c)(1) of 40 CFR 63.3120.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- e. ***Initial notification reports.*** On and after January 5, 2021, the owner or operator shall submit the initial notifications required in 40 CFR 63.9(b) and the notification of compliance status required in 40 CFR 63.9(h) and 63.3110(c) to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The owner or operator must upload to CEDRI an electronic copy of each applicable notification in portable document format (PDF). The applicable notification must be submitted by the deadline specified in 40 CFR 63 subpart IIII, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph [40 CFR 63.3120(e)].
- f. ***Semiannual compliance reports.*** On and after January 5, 2021, or once the reporting template has been available on the CEDRI website for 1 year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in paragraph (a) of 40 CFR 63.3120 to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The owner or operator must use the appropriate electronic template on the CEDRI Web for 40 CFR 63 subpart IIII or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). If the reporting form for the semiannual compliance report specific to 40 CFR 63 subpart IIII is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate addresses listed in 40 CFR 63.13. Once the form has been available in CEDRI for 1 year, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in 40 CFR 63 subpart IIII, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph [40 CFR 63.3120(f)].
- g. ***Reporting during EPA system outages.*** If the permittee is required to electronically submit a report through the CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

days prior to the date that the submission is due, the permittee will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, the permittee may assert a claim of the EPA system outage for failure to timely comply with the reporting requirement. The permittee must submit notification to the Administrator in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The permittee must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which the permittee proposes to report, or if the permittee has already met the reporting requirement at the time of the notification, the date the permittee reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of the EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator [40 CFR 63.3120(g)].

- h. ***Reporting during force majeure events.*** If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of 40 CFR 63.3120, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage). If the permittee intends to assert a claim of force majeure, the permittee must submit notification to the Administrator in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The permittee must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which the permittee propose to report, or if the permittee has already met the reporting requirement at the time of the notification, the date the permittee reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator [40 CFR 63.3120(h)].

**7. Specific Control Equipment Operating Conditions:**

See subsections **1. Operating Limitations**, **2. Emission Limitations**, and **3. Testing Requirements**.



## **SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Group Requirements**

#### **401 KAR 59:185 Affected Sources**

##### **LIST of POINTS**

**A06 Non-Process Cleaning Activities**

**B06 Non-Process Cleaning Activities**

**M07 Non-Process Cleaning Activities**

**K07 Non-Process Cleaning Activities**

**J04 Non-Process Cleaning Activities**

**L04 Non-Process Cleaning Activities**

**C12 Non-Process Cleaning Activities**

**D09 Non-Process Cleaning**

**E13R Non-Process Cleaning Activities, including caustic stripping, grate coating, water blasting, line purging, shot blasting, cold cleaner and surface cleaning**

**F13 Non-Process Cleaning Activities, including, grate coating, water blasting, line purging, cold cleaner and surface cleaning**

**G19 Non-Process Cleaning Activities, including paint stripping, water blasting, line purging, surface cleaning cold cleaner, jig cleaning and chemical honing**

**H05 Non Process Solvent Cleaning Operations, including, CIPG and other areas**

### **APPLICABLE REGULATIONS:**

**401 KAR 59:185, *New solvent metal cleaning equipment***

#### **1. Operating Limitations:**

- a. The cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mm Hg measured at 100°F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one (1) hand [401 KAR 59:185 Section 4(1)(a)].
- b. The cleaner shall be equipped with a drainage facility so that solvent that drains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the Cabinet determines that an internal type cannot fit into the cleaning system [401 KAR 59:185 Section 4(1)(b)].
- c. A permanent, conspicuous label, summarizing the operating requirements specified in 401 KAR 59:185 Section 4(2) shall be installed on or near the cleaner [401 KAR 59:185 Section 4(1)(c)].
  - (1) Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers [401 KAR 59:185, Section 4(2)(a)].
  - (2) The degreaser cover shall be closed if not handling parts in the cleaner [401 KAR 59:185 Section 4(2)(b)].

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (3) Cleaned parts shall be drained for a minimum of fifteen (15) seconds, or until dripping ceases, whichever is longer [401 KAR 59:185, Section 4(2)(c)].
  - (4) The flushing of parts with a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. The solvent flow shall be directed downward to avoid turbulence at the air-solvent interface so as to prevent the solvent from splashing outside of the cold cleaner [401 KAR 59:185, Section 4(2)(d)].
  - (5) Work area fans shall be positioned so that air is not directed across the opening of the cold cleaner [401 KAR 59:185, Section 4(2)(e)].
  - (6) The use of an air-agitated solvent bath is prohibited. A pump-agitated solvent bath shall be operated so as to produce no observable splashing of the solvent against either the tank wall or the parts that are being cleaned [401 KAR 59:185, Section 4(2)(f)].
  - (7) The cold cleaner shall be free of all liquid leaks. Auxiliary cleaning equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible leaks, tears, or cracks [401 KAR 59:185, Section 4(2)(g)].
  - (8) Spills that occur during solvent transfer shall be cleaned immediately. Wipe rags, or other absorbent equipment and materials, used to clean the spill shall be stored in a covered container for disposal unless storage of these items is prohibited by fire protection authorities [401 KAR 59:185, Section 4(2)(h)].
- d. The solvent spray shall be a fluid stream, not a fine, atomized or shower type spray, and at a pressure that does not cause excessive splashing [401 KAR 59:185, Section 4(1)(d)].
  - e. Each cold cleaner shall not use a solvent with a vapor pressure that exceeds one (1.0) mm Hg (0.019 psi) measured at 20° C (68°F) [401 KAR 59:185, Section 4(3)(b)].
  - f. Pursuant to 401 KAR 59:185 Section 4(1)(e), if the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F or if the solvent is heated above 120°F, then one (1) of the following control devices shall be used:
    - (1) Freeboard height that gives a freeboard ratio greater than or equal to seven-tenths (0.7)
    - (2) Water cover, solvent shall be insoluble in and heavier than water
    - (3) Other systems of equivalent control, such as a refrigerated chiller or carbon adsorption.

**2. Emission Limitations:**

None

**3. Testing Requirements:**

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1].

**4. Specific Monitoring Requirements:**

The permittee shall monitor the amount of makeup solvent added to the parts washers.

**SECTION B - EMISSION UNITS, EMISSION POINTS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**5. Specific Recordkeeping Requirements:**

- a. Any individual or entity subject to the provisions of Section 4(3)(b) of 401 KAR 59:185 shall maintain records for a minimum of five (5) years that include the following information for each solvent purchase [401 KAR 59:185 Section 4(4)(b)]:
  - (1) The name and address of the solvent supplier;
  - (2) The date of the purchase;
  - (3) The type of solvent; and
  - (4) The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

**6. Specific Reporting Requirements:**

The permittee shall report the amount of make-up solvent added to the parts washers, as a part of the semiannual reporting as required in Section F (5) & (6).

**7. Specific Control Equipment Operating Conditions:**

None

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

| No. | SHOP               | EMISSION UNIT | DESCRIPTION   | Applicable Regulations           |
|-----|--------------------|---------------|---|----------------------------------|
| 1   | Assembly #1        | A05           | Fluid Filling Operations  | 401 KAR 59:010                   |
| 2   |                    | A08           | Process Lubrication   | 401 KAR 59:010                   |
| 3   |                    | A12           | Miscellaneous Assembly Operations   | 401 KAR 59:010                   |
| 4   | Assembly #2        | B05           | Fluid Filling Operations  | 401 KAR 59:010                   |
| 5   |                    | B08           | Process Lubrication   | 401 KAR 59:010                   |
| 6   |                    | B12           | Miscellaneous Assembly Operations   | 401 KAR 59:010                   |
| 7   | Body Operations    | C01           | Die Construction  | 401 KAR 59:010                   |
| 8   |                    | C11           | Process Lubrication   | 401 KAR 59:010                   |
| 9   |                    | C13           | Fuel Tank Cleaning  | 401 KAR 59:010                   |
| 10  | Facilities Control | D02           | Wastewater Pretreatment   | 401 KAR 59:010                   |
| 11  |                    | D05           | Cooling Towers  | 401 KAR 59:010                   |
| 12  |                    | D08           | Combustion Process <1 MMBtu/hr (combined 100.7597 MMBtu/hr total)             | N/A                              |
| 13  | Paint #1           | E03R          | Metal Finishing Line  | 401 KAR 59:010                   |
| 14  |                    | E08R          | Inspection Lines  | 401 KAR 59:010                   |
| 15  |                    | E10R          | Moon Roof Installation  | 401 KAR 59:010                   |
| 16  |                    | E16R          | Robot Teaching Booth  | 401 KAR 59:010                   |
| 17  |                    | E17R          | Masking Booth   | 401 KAR 59:010                   |
| 18  | Paint #2           | F03           | Metal Finishing Line  | 401 KAR 59:010                   |
| 19  |                    | F08           | Inspection Lines  | 401 KAR 59:010                   |
| 20  |                    | F10           | Moon Roof Installation  | 401 KAR 59:010                   |
| 21  |                    | F15           | Water/Wastewater Treatment Operations   | 401 KAR 59:010                   |
| 22  |                    | F16           | Robot Teaching Booth  | 401 KAR 59:010                   |
| 23  |                    | F17           | Two Tone Masking Booths   | 401 KAR 59:010                   |
| 24  |                    | F27           | Dry Sand Booths   | 401 KAR 59:010                   |
| 25  | Plastics           | G25           | Manifold Assembly Operation   | 401 KAR 59:010                   |
| 26  |                    | G29           | Four Plasma Robots  | N/A                              |
| 27  | Power Train        | H13           | Operational Support   | 401 KAR 59:010                   |
| 28  |                    | H18           | Plasma Cleaning Activities  | 401 KAR 59:010                   |
| 29  |                    | H19           | Laser Cladding Process with two integral dust collectors                      | 401 KAR 59:010                   |
| 30  | Production Control | K01           | Dock Unloading Areas  | 401 KAR 59:010                   |
| 31  |                    | K02           | Parts Conveyance  | 401 KAR 59:010                   |
| 32  |                    | K03           | Shipping Preparation  | 401 KAR 59:010                   |
| 33  |                    | K04           | Fork Truck Repair Painting  | 401 KAR 59:010                   |
| 34  |                    | K05           | Cross Dock  | 401 KAR 59:010                   |
| 35  |                    | K06           | Battery Charging Stations   | 401 KAR 59:010                   |
| 36  | Quality Control    | J01           | Audit Lab   | 401 KAR 59:010                   |
| 37  |                    | J02           | Raw Material Test Lab   | 401 KAR 59:010                   |
| 38  |                    | J03           | Test Track Operations   | 401 KAR 59:010                   |
| 39  |                    | J05           | Team Member Training Activities:<br>Injection Molding<br>Welding<br>Machining | 401 KAR 59:010<br>401 KAR 63:020 |

**SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)**

| <b>No.</b> | <b>SHOP</b>      | <b>EMISSION<br/>UNIT</b> | <b>DESCRIPTION</b>                | <b>Applicable<br/>Regulations</b> |
|------------|------------------|--------------------------|-----------------------------------|-----------------------------------|
| 40         | Toyota Logistics | L02                      | Accessory Installation            | 401 KAR 59:010                    |
| 41         |                  | L03                      | Shipping Preparation              | 401 KAR 59:010                    |
| 42         | Assembly #3      | M10                      | Miscellaneous Assembly Operations | 401 KAR 59:010                    |

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. **Compliance Demonstration Method for Transfer Efficiency Testing:**
  - (1) For affected facilities that use transfer efficiency in the determination of kilograms of VOC per liter of applied solids the permittee shall:
    - i. Use the transfer efficiency value specified in 40 CFR 60.393 for the application method used; or
    - ii. Use a transfer efficiency value determined through engineering evaluations<sup>1</sup> or representative testing approved by the Division. Previous transfer efficiency tests may be accepted if the following conditions are met:
      - A. The previous test must have been conducted using methods and conditions approved by the Division.
      - B. Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.
      - C. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the operating parameters.

### **Compliance Demonstration Method for Carry Over Efficiency Testing:**

- (2) For affected facilities that use carry over efficiency in the determination of VOC emissions the permittee shall:
  - i. Use a carryover efficiency value determined through engineering evaluations<sup>1</sup> or representative testing approved by the Division. Previous carry over efficiency tests may be accepted if the following conditions are met:
    - A. The previous test must have been conducted using methods and conditions approved by the Division.
    - B. Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.
    - C. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the operating parameters.

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)**

### **Compliance Demonstration Method for Capture Efficiency Testing:**

- (3) For affected facilities that use capture efficiency in the determination of VOC emissions the permittee shall:
- i. Use a capture efficiency value determined through engineering evaluations<sup>1</sup> or representative testing approved by the Division. Previous capture efficiency tests may be accepted if the following conditions are met:
    - A. The previous test must have been conducted using methods and conditions approved by the Division.
    - B. Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.
    - C. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the operating parameters.

### **Compliance Demonstration Method for Standard Gallons per Job Calculation:**

- (4) The permittee shall notify the Division of any changes to the methodology for determining the standard gallons of material per job for the purposes of calculating emissions.

<sup>1</sup>**Engineering Evaluations shall be submitted to the permit review branch of the Division.**

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

### 4. Synthetic Minor Limits on PM<sub>2.5</sub>, NO<sub>x</sub> and CO<sub>2e</sub> Emissions to preclude applicability of 401 KAR 51:017

- (a) PM<sub>2.5</sub> emissions from Line 3 Operations shall not exceed 9.0 tons per year based on a 12-month rolling total.

#### Compliance Demonstration Method:

PM<sub>2.5</sub> emissions from Line 3 Operations =  $\sum$  [Welding Operations, C15] +  $\sum$  [Surface Coating Operations, Paint #2, F19 through F26 & Plastics, G26] +  $\sum$  [Natural Gas Combustion Units, D11A & D11B] +  $\sum$  [Assembly #3] +  $\sum$  [Insignificant Activities, IA #24]

PM<sub>2.5</sub> emissions are calculated as follows:

$$[M_{\text{wire}} \rho_{\text{wire}} \times (1 - \text{C.E.})] + [M_{\text{coating}} \rho_{\text{coating}} \times (1 - \text{T.E.}) \times (1 - \text{C.E.*})] + [M_{\text{N.G.}} \times \rho_{\text{N.G.}}] + [V \times \text{EF}_{\text{PM}}]$$

Where;

- M<sub>wire</sub> = Pounds of welding wire used
- ρ<sub>wire</sub> = PM<sub>2.5</sub> emission factor of welding wire, (lb/lb)
- C.E. = Control efficiency of the PM/PM<sub>10</sub>/PM<sub>2.5</sub> control equipment
- M<sub>coating</sub> = Gallons of coating material used
- ρ<sub>coating</sub> = PM<sub>2.5</sub> content of coating material, (lbs/gallon)
- T.E. = Transfer efficiency of the application equipment
- M<sub>N.G.</sub> = Natural gas used (10<sup>6</sup>scf)
- ρ<sub>N.G.</sub> = The most recent finalized AP-42 PM<sub>2.5</sub> emission factor (lb/10<sup>6</sup>scf)
- V = Number of vehicles tested
- EF<sub>PM</sub> = PM<sub>2.5</sub> emission factor (lb/test)

\*Control efficiency for scrubber shall be calculated using the following equation:

$$\text{C.E. of scrubber} = 1 - \{ \text{PM emission rate} / [M_{\text{coating}} \rho_{\text{coating}} \times (1 - \text{T.E.})] \}$$

PM emission rate shall be obtained from stack test every five years. See Periodic Monitoring Table in Section B.

Transfer efficiency shall be obtained from initial performance demonstration.

- (b) NO<sub>x</sub> emissions from Line 3 Operations shall not exceed 39.8 tons per year based on a 12-month rolling total.

#### Compliance Demonstration Method:

NO<sub>x</sub> emissions from Line 3 Operations =  $\sum$  [Natural Gas Combustion Units, D11A & D11B] +  $\sum$  [Assembly #3, M04]

NO<sub>x</sub> emissions are calculated as follows:

$$[M_{\text{N.G.}} \times \rho_{\text{NO}_x}] + [V \times \text{EF}_{\text{NO}_x}]$$



## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

### 4. Synthetic Minor Limits on PM<sub>2.5</sub>, NO<sub>x</sub> and CO<sub>2</sub>e Emissions to preclude applicability of 401 KAR 51:017 (continued)

Where;

- $M_{N.G.}$  = Natural gas used (10<sup>6</sup>scf)  
 $\rho_{NO_x}$  = The most recent finalized AP-42 NO<sub>x</sub> emission factor (lb/10<sup>6</sup>scf)  
 $V$  = Number of vehicles tested  
 $EF_{NO_x}$  = NO<sub>x</sub> emission factor (lb/test)

- (c) CO<sub>2</sub>e emissions from Line 3 Operations shall not exceed 47,570 tons per year based on a 12-month rolling total.

#### Compliance Demonstration Method:

CO<sub>2</sub>e emissions from Line 3 Operations =  $\sum$  [Welding Operations, C15] +  $\sum$  [Natural Gas Combustion Units, D11A & D11B] +  $\sum$  [Assembly #3, M04]

CO<sub>2</sub>e –based emissions are calculated as follows:

[Carbon Dioxide (tons) x GWP for CO<sub>2</sub>] + [Nitrous Oxide (tons) x GWP for N<sub>2</sub>O] + [Methane (tons) x GWP for CH<sub>4</sub>]

The most recent finalized emission factors for greenhouse gas (GHG) listed in AP-42 or 40 CFR Part 98 *Mandatory Greenhouse Gas Reporting*, Subpart C shall be used for natural gas combustion units.

| <u>GHG</u>                        | <u>Global Warming Potential (GWP)</u> |
|-----------------------------------|---------------------------------------|
| Carbon Dioxide (CO <sub>2</sub> ) | 1                                     |
| Nitrous Oxide (N <sub>2</sub> O)  | 298                                   |
| Methane (CH <sub>4</sub> )        | 25                                    |

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**40 CFR 64, Compliance Assurance Monitoring (CAM)** is applicable to a pollutant-specific emissions unit (PSEU) at a major source that uses a control device to achieve compliance with an applicable emission limitation and has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

**a. MONITORING APPROACH FOR PAINT # 1, Primer Booth (EP# E05R) and TOPCOAT (EP# E07R)**

**1. PM/PM<sub>10</sub> Background for Emission Point E05R and E07R (Line D and E)**

**Emission Unit**

Emission point E05R Primer Line (Lines D & E) & E07R Topcoat Lines (Lines D & E)

**Description:**

Wet on Wet Painting system used to paint metal vehicle bodies. System will apply Primer, Basecoat and Clearcoat. Paint Curing will occur from the Heated Flash zones following Primer and Basecoat spray booths and the systems curing oven that will follow the Clearcoat Spray booths. Overspray emissions from the coating applicators in the booths are routed to the tower wet scrubber.

**Pollutant: PM/PM<sub>10</sub>**

**Applicable Regulations:**

**401 KAR 51:017:**

**Emission Limitations:**

The permittee shall not cause the discharge into the atmosphere of more than 4.02 lbs of PM per hour for E05R Primer Lines and 7.43 lbs of PM per hour for E07R Topcoat Lines.

**401 KAR 59:010 Section 3**

**Emission Limitations:** Particulate emissions shall not exceed the emission rate determined by the process weight rule. (The emissions limitations required by BACT are more stringent, therefore compliance with the BACT limit ensures compliance with the 401 KAR 59:010.)

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****i. Continuous Assurance Monitoring Approach Summary for the Tower Wet Scrubbers TS11 and TS12 Controlling PM/PM<sub>10</sub> Emissions from Emissions Point E05R and E07R (Line D and E):****Indicator****Parameter:**

Water flow in the tower

**Measurement Approach:**

Continuous water flow meter with an alarm will ensure the tower is in the proper operating range of particulate removal.

**Indicator Range:** The water flow alarm will be set based upon ratio of water flow to exhaust gas flow rate by weight, determined by manufacturer specification.

**Performance Criteria:****Data Representativeness:**

The particulate emissions by coating applicators are forced through the water scrubber before venting to the atmosphere. The degree to which the wet scrubber is able to control particulate emissions is largely dependent upon the rate of water flow being sprayed in the tower in relation to the exhaust gas weight. The flow rate of water being within manufacturer's specifications demonstrates that the tower is operating properly.

**Verification of Operational Status:**

The permittee shall maintain Status Records of water flow rate and the 5-year stack test are maintained on site.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, and maintenance of the wet scrubber system and flow meter. Stack testing equipment is calibrated every 5 years

**Monitoring Frequency and Data Collection Procedures:**

The permittee shall record water flow (hourly) and alarms and maintain logs of such inspections on site.

**Corrective Action:**

When an alarm is activated, the site operators take corrective actions to adjust the flow to the correct rate. If the flow rate cannot be rectified, the site operator shall remedy the malfunction as soon as is practicable.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****2. VOC Background for Emission Point E05R and E07R (Line D and E)****Emission Unit**

Emission point E05R Primer Line (Lines D & E) & E07R Topcoat Lines (Lines D and E)

**Description:**

Wet on Wet Painting system used to paint metal vehicle bodies. System will apply Primer, Basecoat and Clearcoat. Paint Curing will occur from the Heated Flash zones that following Primer and Basecoat spray booths and the systems curing oven that will follow the Clearcoat Spray booths. Thermal oxidizer is utilized to control the VOC exhaust gas streams from the Primer/Basecoat Heated Flash zones, Clearcoat Booths and Bake Oven. The alternate operating scenario for VOC abatement is a combination of a VOC concentrator and Thermal oxidizer.

**Pollutant: VOC****Applicable Regulations:****401 KAR 51:017:**

**Emission Limitations:** The permittee shall not cause the discharge into the atmosphere of more than 2.11 lbs of VOC per job for E05R Primer Lines and 3.86 lbs of VOC per job for E07R Topcoat Lines.

**i. Continuous Assurance Monitoring Approach Summary for the Thermal Oxidizers (RTO-05 and RTO-06) Controlling VOC Emissions from Emissions Point E05R and E07R (Line D and E):****Indicator**

**Parameter:** Combustion chamber temperature

**Measurement Approach:**

The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 95%.

**Indicator Range:** The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****Performance Criteria:**

**Data Representativeness:** The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:** The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:** The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:** The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.

**Procedures Corrective Action:** When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****b. MONITORING APPROACH FOR PAINT # 2, TOPCOAT A AND B (EP# F07)****1. PM/PM<sub>10</sub> Background for Emission Point F07****Emission Unit:**

Emission Point F07: Topcoat Lines A and B

**Description:**

Topcoats are applied to autobodies in two paint booths. Each booth uses a total enclosure to capture overspray emissions, and each is equipped with a curing oven. Overspray emissions from the coating applicators in Booths A and B are routed to Wet Scrubbers TS23 and TS24, respectively. Particulate emissions from Booths A and B are also controlled by Filters TF27 and TF28.

**Pollutant:**

PM/PM<sub>10</sub>

**Applicable Regulations****401 KAR 51:017**

**Emission Limitations:** The permittee shall not cause the discharge into the atmosphere of more than 7.42 lbs of PM per hour.

**401 KAR 59:010 Section 3**

**Emission Limitations:** Particulate emissions shall not equal or exceed the emission rate determined by the process weight rule. (The emissions limitations required by BACT are more stringent than the PWR, therefore compliance with the BACT limit ensures compliance with the 401 KAR 59:010)

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****i. Compliance Assurance Monitoring Approach Summary for the Filter (Final Stage) Controlling PM/PM<sub>10</sub> Emissions from F07****Indicator:****Parameter:** Pressure drop across final stage filter**Measurement Approach:**

1. The permittee shall display pressure drop across the final stage filter using a differential pressure gauge.
2. Each week, an operator shall visually observe the monitoring devices while recording pressure drop readings.
3. Inspection and maintenance of the differential gauge shall be performed annually in accordance with manufacturer's specifications. In addition, operators shall conduct a monthly visual inspection to verify that all final filters are in place.

**Indicator Range:**

The differential pressure reading must remain between TBD millimeters of H<sub>2</sub>O. Excursions trigger an inspection and potentially corrective action and reporting. Maintaining the pressure drop above 0 millimeter of H<sub>2</sub>O indicates the absence of channeling, whereas the upper end of the pressure drop ensures that the collection efficiency of the system is operating as suggested by the manufacturer.

**Performance Criteria:****Data Representativeness:**

Pressure drop across the filters is an indicator of control device performance and thus can be used to ensure compliance with applicable emission limitations.

**Verification of Operational Status:**

Records of the weekly gauge readings, monthly filter inspections, and annual calibrations shall be maintained on site.

**QA and QC Practices and Criteria:**

Annual calibration of the pressure drop gauges provides verification of accurate measurements.

**Monitoring Frequency and Data Collection Procedures:**

The pressure drop is monitored weekly and the operator records an instantaneous measurement of pressure drop once per week.

**Corrective Action:**

When an out-of-range pressure drop reading occurs, operators will check the pressure gauge and filter equipment to ensure proper operation. If any of these checks indicate abnormal operation, The permittee will inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem will be remedied as soon as is practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****ii. Continuous Assurance Monitoring Approach Summary for the Wet Scrubbers  
Controlling PM/PM<sub>10</sub> Emissions from Emissions Point F07****Indicator:****Parameter:**

Significant gaps in the water-wall coverage

**Measurement Approach:**

Once per week visual inspection will be made of the water-wall coverage to ensure that there are no significant gaps. The permittee shall perform stack tests every five years according to USEPA Method 17 to quantify the particulate emission rate.

**Indicator Range:**

No "significant" gap in the water wall is indicative of proper operation. The permittee has established with the Division the definition of a significant gap.

**Performance Criteria****Data Representativeness:**

All particulate emissions (i.e., overspray) generated by coating applicators are forced through the water wash system before venting through the filters for additional PM control. The degree to which the wet scrubber is able to control particulate emissions is largely dependent upon the water-wall coverage. The absence of significant gaps in the water wall demonstrates that the venturi water wall is operating properly

**Verification of Operational Status:**

The permittee shall maintain Status Records of weekly visual inspections for significant gaps.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, and maintenance of the wet scrubber system. Each operator shall be trained by the permittee to recognize a significant gap in the water-wall coverage.

**Monitoring Frequency and Data Collection Procedures:**

The permittee shall perform weekly visual inspections to identify any significant gaps in the water-wall coverage and maintain logs of such inspections on site.

**Corrective Action:**

When a significant gap is found, the site operators shall take corrective actions to clear the blockage. If the blockage cannot be rectified, the site operator shall remedy the malfunction as soon as is practicable to clear the blockage.



**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****c. MONITORING APPROACH FOR PLASTIC EXTERIOR PART PAINTING  
OPERATIONS (EP# G21)****1. PM/PM<sub>10</sub> Background for Emission Point G21 (Line B1)****Emission Unit****Emission point** G21: Exterior Part Painting Operations (Line B1)**Description:**

Exterior automotive plastic components (rocker panels) are painted in the paint booth (Line B1). The booths are equipped with a pair of curing ovens. Emissions from the booths are routed to Filters RF14 (Line B1) and Wet Scrubbers RS16 for particulate control.

**Pollutant:** PM/PM<sub>10</sub>**Applicable Regulations:****401 KAR 51:017:****Emission Limitations:**

The permittee shall not cause the discharge into the atmosphere of more than 0.99 lbs of PM per hour.

**401 KAR 59:010 Section 3**

**Emission Limitations:** Particulate emissions shall not exceed the emission rate determined by the process weight rule. (The emissions limitations required by BACT are more stringent, therefore compliance with the BACT limit ensures compliance with the 401 KAR 59:010.)

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****i. Compliance Assurance Monitoring Approach Summary for the Filters RF14  
(Line B1) Controlling PM/PM<sub>10</sub> emissions from Emission Point # G21:****Indicator: Parameter:**

Pressure drop across final stage filters

**Measurement Approach:**

1. The permittee shall display pressure drop across the final stage filter using a differential pressure gauge.
2. Each week, an operator shall visually observe the monitoring device while recording pressure drop readings.
3. Inspection and maintenance of the differential gauge shall be performed annually in accordance with manufacturer's specifications. Visible observations of the opacity of emissions from the rooftop shall be performed by an operator on a weekly basis and logged. Every five years, The permittee shall perform a stack test according to USEPA Method 17 to measure the PM emission rate. Operators shall conduct a monthly visual inspection to verify that filter is in place. Filters are changed based on a permittee established pressure drop.

**Indicator Range:** The differential pressure reading must not exceed 1.1 and must be greater than 0 inches of H<sub>2</sub>O. Excursions trigger an inspection and potentially corrective action and reporting.

Maintaining the pressure drop above TBD inches of H<sub>2</sub>O indicates the filters are in place, whereas the upper end of the pressure drop ensures that collection efficiency of the system is operating as suggested by the manufacturer.

**Performance Criteria:**

**Data Representativeness:** Pressure drop across the filters is an indicator of control device performance and thus can be used to ensure compliance with applicable emission limitations.

**Verification of Operational Status:** Records of the weekly gauge readings, weekly observations, annual calibrations, 5-year stack tests, and monthly filter inspections are maintained on site.

**QA/QC Practices and Criteria:** Annual calibration of the pressure drop gauges provides verification of accurate measurements. Visual observations are performed weekly, and the stack test equipment is calibrated every 5 years.

**Monitoring Frequency and Data Collection Procedures:** The pressure drop shall be displayed continuously and the operator records an instantaneous measurement of pressure drop once per week.

**Corrective Action:** When an out-of-range pressure drop reading occurs, operators shall check the pressure gauge and filter equipment to ensure proper operation. If any of these checks indicate abnormal operation, The permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as is practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****ii. Continuous Assurance Monitoring Approach Summary for the Tower Wet Scrubbers RS16 Controlling PM/PM<sub>10</sub> Emissions from Emissions Point G21 (Line B1):****Indicator****Parameter:**

Water flow in the tower

**Measurement Approach:**

Continuous water flow meter with an alarm will ensure the tower is in the proper operating range of particulate removal.

**Indicator Range:** The water flow alarm will be set based upon ratio of water flow to exhaust gas flow rate by weight, determined by manufacturer specification.

**Performance Criteria:****Data Representativeness:**

The particulate emissions by coating applicators are forced through the water scrubber before venting to the atmosphere. The degree to which the wet scrubber is able to control particulate emissions is largely dependent upon the rate of water flow being sprayed in the tower in relation to the exhaust gas weight. The flow rate of water being within manufacturer's specifications demonstrates that the tower is operating properly.

**Verification of Operational Status:**

The permittee shall maintain Status Records of water flow rate and the 5-year stack test are maintained on site.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, and maintenance of the wet scrubber system and flow meter. Stack testing equipment is calibrated every 5 years

**Monitoring Frequency and Data Collection Procedures:**

The permittee shall record water flow (hourly) and alarms and maintain logs of such inspections on site.

**Corrective Action:**

When an alarm is activated, the site operators take corrective actions to adjust the flow to the correct rate. If the flow rate cannot be rectified, the site operator shall remedy the malfunction as soon as is practicable.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****2. VOC Background for Emission Point G21 (Line B1)****Emission Unit**

**Emission point** G21: Exterior Part Painting Operations (Line B1)

**Description:**

Exterior automotive plastic components (rocker panels) are painted in the paint booths, Line B1. Each booth employs a capture system and each one is equipped with a curing oven. Emissions from Booths are routed to VOC Wheels RC07 and Thermal Oxidizers RT11 for VOC control.

**Pollutant: VOC****Applicable Regulations:****401 KAR 51:017:**

**Emission Limitations:** The permittee shall not cause the discharge into the atmosphere of more than 0.21 lbs of VOC per job.

**i. Continuous Assurance Monitoring Approach Summary for the VOC Concentrators (RC07) Controlling VOC Emissions from G21****Indicator: Parameter:**

Desorption gas inlet temperature

**Measurement Approach:**

The Permittee shall continuously monitor the thermocouple temperature of the desorption gas inlet to ensure that it does not fall more than 8°C below the average desorption gas inlet temperature established during the performance test. The Permittee shall keep the set point for the desorption gas inlet temperature no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature established during the performance test. Operators shall perform a monthly visual inspection to verify that the Desorption / Reactivation Fan is operating properly. Another pressure sensor with an alarm will continuously monitor the pressure drop across the adsorber trays to ensure carbon is properly flowing through the system. To test the VOC concentrator's performance, representative samples and the adsorbent activity shall be tested according to the manufacturer's recommendations on an annual basis; alternatively, portable ionization detectors may be used to conduct this annual performance test. An alarm shall alert operators of any periods during which the by-pass damper diverts flow from the VOC concentrator.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****Indicator Range:**

The minimum operating limit for the concentrator is 8°C below the average desorption gas inlet temperature maintained during the last performance test. The set point for the desorption gas inlet temperature is no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature maintained during the performance test. Any 3-hour block average combustion temperature reading below the minimum operating limit will be considered an excursion.

**Performance Criteria:****Data Representativeness:**

The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:**

The permittee shall keep records of continuous desorption gas inlet temperature readings onsite and made available for inspection.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate desorption gas inlet temperature data, spare thermocouples shall be kept onsite and the permittee shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:**

The desorption gas inlet temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the annual performance tests will be maintained on site.

**Corrective Action:**

When an out-of-range temperature reading occurs, the permittee shall check the VOC concentrator to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****ii. Continuous Assurance Monitoring Approach Summary for the Thermal Oxidizers (RT11) Controlling VOC Emissions from G21 (Line B1):**

|   |
|---|
| <p><b>Indicator</b></p> <p><b>Parameter:</b> Combustion chamber temperature</p> <p><b>Measurement Approach:</b></p> <p>The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 95%.</p>   |
| <p><b>Indicator Range:</b> The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.</p>  |
| <p><b>Performance Criteria:</b></p> <p><b>Data Representativeness:</b> The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.</p> <p><b>Verification of Operational Status:</b> The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.</p> <p><b>QA/QC Practices and Criteria:</b> The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.</p> <p><b>Monitoring Frequency and Data Collection Procedures:</b> The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.</p> <p><b>Procedures Corrective Action:</b> When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.</p> |

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****d. MONITORING APPROACH FOR PLASTIC BUMPER PAINTING OPERATIONS  
(EP# G22)****1. PM/PM<sub>10</sub> Background for Emission Point G22****Emission Unit**

**Emission point** G22: Bumper Painting Operations

**Description:**

Plastic automotive bumpers are painted in four booths (G & H). Overspray emissions are captured in the booth and each one is equipped with a curing oven. Emissions from the booths are routed to Wet Scrubbers RS14 (Booth G) and RS15 (Booth H) for particulate control.

**Pollutant:** PM/PM<sub>10</sub>

**Applicable Regulations:****401 KAR 51:017:****Emission Limitations:**

The permittee shall not cause the discharge into the atmosphere of more than 5.42 lbs of PM per hour.

**401 KAR 59:010 Section 3**

**Emission Limitations:** Particulate emissions shall not exceed the emission rate determined by the process weight rule. (The emissions limitations required by BACT are more stringent than the FWR, therefore compliance with the BACT limit ensures compliance with the 401 KAR 59:010.)

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****i. Continuous Assurance Monitoring Approach Summary for the Tower Wet Scrubbers RS14 (Booth G) and RS15 (Booth H) Controlling PM/PM<sub>10</sub> Emissions from Emissions Point G22:****Indicator****Parameter:**

Water flow in the tower

**Measurement Approach:**

Continuous water flow meter with an alarm will ensure the tower is in the proper operating range of particulate removal.

**Indicator Range:** The water flow alarm will be set based upon ratio of water flow to exhaust gas flow rate by weight, determined by manufacturer specification.

**Performance Criteria:****Data Representativeness:**

The particulate emissions by coating applicators are forced through the water scrubber before venting to the atmosphere. The degree to which the wet scrubber is able to control particulate emissions is largely dependent upon the rate of water flow being sprayed in the tower in relation to the exhaust gas weight. The flow rate of water being within manufacturer's specifications demonstrates that the tower is operating properly.

**Verification of Operational Status:**

The permittee shall maintain Status Records of water flow rate and the 5-year stack test are maintained on site.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, and maintenance of the wet scrubber system and flow meter. Stack testing equipment is calibrated every 5 years

**Monitoring Frequency and Data Collection Procedures:**

The permittee shall record water flow (hourly) and alarms and maintain logs of such inspections on site.

**Corrective Action:**

When an alarm is activated, the site operators take corrective actions to adjust the flow to the correct rate. If the flow rate cannot be rectified, the site operator shall remedy the malfunction as soon as is practicable.



**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****2. VOC Background for Emission Point G22****Emission Unit**

**Emission point** G22: Bumper Painting Operations

**Description:** Plastic automotive bumpers are painted in four booths. All booths employ a capture system and each one is equipped with a curing oven. Emissions from Booths G and H are routed to Regenerative Thermal Oxidizer RT12 for VOC Control. VOC concentrators RC04 and RC05 and Thermal Oxidizers RT08 and RT09 are used for VOC control as Alternative Operating Scenarios Only. Ovens G & H are uncontrolled.

**Pollutant: VOC****Applicable Regulations:**

**401 KAR 51:017:**

**Emission Limitations:** The permittee shall not cause the discharge into the atmosphere of more than 1.04 lbs of VOC per job.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****i. Continuous Assurance Monitoring Approach Summary for the VOC Concentrators (RC04 and RC05) Controlling VOC Emissions from G22 (Alternative Operating Scenario Only):****Indicator: Parameter:**

Desorption gas inlet temperature

**Measurement Approach:**

The Permittee shall continuously monitor the thermocouple temperature of the desorption gas inlet to ensure that it does not fall more than 8°C below the average desorption gas inlet temperature established during the performance test. The Permittee shall keep the set point for the desorption gas inlet temperature no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature established during the performance test. Operators shall perform a monthly visual inspection to verify that the Desorption / Reactivation Fan is operating properly. Another pressure sensor with an alarm will continuously monitor the pressure drop across the adsorber trays to ensure carbon is properly flowing through the system. To test the VOC concentrator's performance, representative samples and the adsorbent activity shall be tested according to the manufacturer's recommendations on an annual basis; alternatively, portable ionization detectors may be used to conduct this annual performance test. An alarm shall alert operators of any periods during which the by-pass damper diverts flow from the VOC concentrator.

**Indicator Range:**

The minimum operating limit for the concentrator is 8°C below the average desorption gas inlet temperature maintained during the last performance test. The set point for the desorption gas inlet temperature is no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature maintained during the performance test. Any 3-hour block average combustion temperature reading below the minimum operating limit will be considered an excursion.

**Performance Criteria:****Data Representativeness:**

The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:**

The permittee shall keep records of continuous desorption gas inlet temperature readings onsite and made available for inspection.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate desorption gas inlet temperature data, spare thermocouples shall be kept onsite and the permittee shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)**

### **Monitoring Frequency and Data Collection Procedures:**

The desorption gas inlet temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the annual performance tests will be maintained on site.

### **Corrective Action:**

When an out-of-range temperature reading occurs, the permittee shall check the VOC concentrator to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****ii. Continuous Assurance Monitoring Approach Summary for the Regenerative Thermal Oxidizer (RT12) Controlling VOC Emissions from G22:****Indicator****Parameter:** Combustion chamber temperature**Measurement Approach:**

The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 81%.

**Indicator Range:** The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.

**Performance Criteria:**

**Data Representativeness:** The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:** The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:** The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:** The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.

**Procedures Corrective Action:** When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****iii. Continuous Assurance Monitoring Approach Summary for the Thermal Oxidizers (RT08 and RT09) Controlling VOC Emissions from G22 (Alternative Operating Scenario Only):****Indicator****Parameter:** Combustion chamber temperature**Measurement Approach:**

The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 95%.

**Indicator Range:** The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.

**Performance Criteria:**

**Data Representativeness:** The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:** The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:** The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:** The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.

**Procedures Corrective Action:** When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****e. Monitoring Approach for Each Loaded Dynamometer Engine Testing L4 Area (EP # H12-03) and V6 Area (EP # H12-06)****1. CO Background for Emission Unit H12-03 (L4 Area) and H12-06 (V6 Area)**

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| <b>Emission Unit ID:</b> H12-03 (L4) and H12-06 (V6): Loaded Dynamometer Engine Testing<br><b>Pollutant:</b> CO  |
| <b>Applicable Regulations</b> 401 KAR 51:017 Section 8(3) - BACT   |
| <b>Emission Limitations:</b> The permittee shall not discharge into the atmosphere during engine testing operations, any gases that contain CO in concentrations that exceed the following limits:<br>1. L4 Area: Loaded Dynamometer Test Cells: 6.39lb/hr/cell, based on a 3-hour average;<br>and<br>2. V6 Area: Loaded Dynamometer Test Cells: 6.39lb/hr/cell, based on a 3-hour average |

**i. Continuous Assurance Monitoring Approach Summary for Catalytic Converter (CC) System Controlling CO Emissions from H12-03 and H12-06**

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| <b>Indicator Parameter # 1:</b> Temperature in Catalytic Converter Chamber, which is part of the CC System   |
| <b>Indicator Parameter # 2:</b> Air/Fuel Ratio Prior to Catalytic Converter Chamber, which is part of the CC System  |
| <b>Indicator Parameter # 3:</b> Total Hours Each Catalyst Converter Substrate is Exposed to Loaded Dynamometer Test Patterns   |
| <b>Rationale:</b><br>The permittee will conduct performance stack tests annually according to U.S. EPA Reference Method 10 to verify that the CC System is meeting the CO BACT limits and operating limits. Continuous assurance is provided by three (3) monitored parameters:<br>1) Continuous monitoring to ensure the maximum operating temperature of the catalyst converter does not exceed its manufacturer's recommended specification,<br>2) Continuous monitoring to ensure the air to fuel ratio is above 14.6, and<br>3) Continuous monitoring to ensure the cumulative hours of operation for each catalyst converter substrate does not exceed its manufacturer's recommended specification. |

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****ii. Continuous Assurance Monitoring Approach for Indicator #1 for each CC System  
Controlling CO Emissions from H12-03 and H12-06****Indicator**

**Parameter # 1:** Temperature in Catalytic Converter Chamber of the CC System

**Measurement Approach:**

The permittee shall continuously monitor the temperature in each catalytic converter chamber using a thermocouple monitoring device.

**Indicator Range:**

The 60-minute average temperature in each catalytic converter chamber shall be maintained below the maximum temperature recommended by the manufacturer.

**Performance Criteria:****Data Representativeness:**

The temperature monitoring device shall be located in the catalytic converter. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:**

The permittee shall keep records of catalytic converter temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:**

The catalytic converter outlet temperature shall be monitored continuously and recorded during each specific loaded dynamometer test pattern. The consecutive 15-minute blocks of temperature readings shall be recorded. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the annual stack test, internal inspection, and monthly external inspection shall be maintained on site.

**Corrective Action:**

When an out-of-range temperature reading occurs, the permittee shall check the CC System to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system. If corrective actions are not successful within the subsequent 45-minute period, the loaded dynamometer test pattern shall cease.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****iii. Continuous Assurance Monitoring Approach for Indicator #2 for each CC System  
Controlling CO Emissions from H12-03 and H12-06****Indicator**

**Parameter # 2:** Air to Fuel Ratio Prior to Each Catalytic Converter Chamber of the CC System

**Measurement Approach:**

The permittee shall continuously monitor the Air to Fuel ratio (A/F) prior to each catalytic converter chamber using an A/F monitoring device.

**Indicator Range:**

The 60-minute average A/F prior to each catalytic converter chamber shall be maintained above 14.6. The value of 14.6 was chosen because this value represents the stoichiometric ratio for complete combustion. For every pound of gasoline (or the combustion by-products which have the same mass exiting the tested engine), the CC System will supply at least 14.6 pounds of air to assist in the conversion of CO to CO<sub>2</sub> on the catalyst substrate.

**Performance Criteria:****Data Representativeness:**

The A/F monitoring device shall be located after the air blower and prior to the catalytic converter chamber. The tolerance of the A/F sensor and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:**

The permittee shall keep records of A/F readings onsite and made available for inspection.

**QA/QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the A/F sensor. The permittee shall calibrate the A/F sensor on a semi-annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate air to fuel ratios, spare A/F sensors shall be kept onsite and operators shall replace malfunctioning sensors if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:**

The A/F shall be monitored continuously and recorded during each specific loaded dynamometer test pattern. The consecutive 15-minute blocks of A/F readings shall be recorded. The permittee shall tabulate and maintain these A/F measurements in an electronic database. Records of the annual stack test, internal inspection, and monthly external inspection shall be maintained on site.

**Corrective Action:**

When an out-of-range A/F reading occurs, the permittee shall check the CC System to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system. If corrective actions are not successful within the subsequent 45-minute period, the loaded dynamometer test pattern shall cease.



**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****iv. Continuous Assurance Monitoring Approach for Indicator #3 for each CC System  
Controlling CO Emissions from H12-03 and H12-06****Indicator**

**Parameter # 3:** Total Hours Each Catalytic Converter Substrate Operates While Performing Loaded Dynamometer Test Patterns

**Measurement Approach:**

The permittee shall continuously monitor the number of hours each catalyst converter substrate is operated while performing loaded dynamometer test patterns.

**Indicator Range:**

The hours of operation of each catalyst converter substrate when it is exposed to loaded dynamometer test patterns shall not exceed the total time recommended by the catalyst manufacturer or timeframe as approved by the Division. This type of threshold is necessary because each manufacturer provides specific catalyst life guarantees by which effectiveness of the catalyst converter substrate maybe reduced.

**Performance Criteria:****Data Representativeness:**

The hours of operation for each catalyst converter substrate will be tracked by an electronic system associated with each CC System. Prior to starting operation, an operator with administrative privileges must enter the serial number of the catalyst converter substrate used in the CC System into the electronic panel. Operation of the catalyst converter substrate is defined as any time when the engine is in operation above 200 rpm. Given that 200 rpm is well below typical idle engine speed, an engine speed of 200 rpm and greater will represent engine operation and subsequently CC System operation. The total time while the catalyst converter substrate is in operation will be monitored and recorded on a cumulative basis.

**Verification of Operational Status:**

The readout showing total time of operation will be clearly shown on the electronic screen on each CC System. Records of total hours shall be kept onsite and can be made available for inspection.

**QA/QC Practices and Criteria:**

To ensure that operator cannot alter the time allowed, it will be protected by password provided by the Administrator of the CC Systems within Powertrain. In addition, once the total time recommend by the catalyst manufacturer (e.g., 8,000 hours) has been entered into the electronic system, it serves as an upper limit. Moreover, since this upper limit will be programmed as an interlock with the dynamometer, it will prevent an operator from running loaded test patterns above it. While the total time of catalyst converter substrate operation is based on overly conservative manufacturer's recommendations/guarantees; if the catalyst converter is still fully functional and still able to achieve the required control efficiency (i.e., > 96% for CO) well past the 8,000 hours, the permittee is allowed to make a demonstration to the Division to request more hours of operation.

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)**

During the change out, an operator with administrative privileges will enter the serial number of the new catalyst converter substrate into the electronic panel, thereby starting the next cumulative period for the catalytic converter substrate.

### **Monitoring Frequency and Data Collection Procedures:**

The cumulative hours of operation shall be monitored continuously and recorded during all loaded dynamometer test patterns that have been specified. The permittee shall tabulate and maintain these cumulative operational hours by serial number in an electronic database. Records of total hours are kept onsite and can be made available for inspection.

### **Corrective Action:**

When the total hours of operation are out-of-range, the permittee shall replace the catalytic catalyst converter substrate unless they have prior written authorization from the Division to keep operating the catalyst converter substrate for longer periods. This out-of-range value will be programmed into the electronic system as an interlock preventing the operator from running loaded test patterns.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****f. MONITORING APPROACH FOR PAINT # 2, TOPCOAT BOOTHS (EP# F22)****VOC Background for Emission Point F22**

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| <b>Emission Unit</b><br><b>Emission point</b> F22: Topcoat Booths<br><br><b>Description:</b> Topcoats are applied to autobodies in the basecoat and clearcoat booths. All booths employ a capture system and equip with a curing oven. Emissions from clearcoat booth automatic zone are routed to VOC concentrator TC04 and Thermal Oxidizer TT13 for VOC control. Additionally, emissions from the booths are carried over to the oven; VOC emissions from Oven are controlled by Thermal Oxidizers TT11.<br><b>Pollutant:</b> VOC |
| <b>Applicable Regulations:</b><br><b>401 KAR 51:017:</b><br><b>Emission Limitations:</b> The permittee shall not cause the discharge into the atmosphere of more than 3.54 lbs of VOC per job.   |

**i. Continuous Assurance Monitoring Approach Summary for the VOC Concentrators (TC04) Controlling VOC Emissions from F22**

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| <b>Indicator: Parameter:</b><br>Desorption gas inlet temperature<br><br><b>Measurement Approach:</b><br>The Permittee shall continuously monitor the thermocouple temperature of the desorption gas inlet to ensure that it does not fall more than 8°C below the average desorption gas inlet temperature established during the performance test. The Permittee shall keep the set point for the desorption gas inlet temperature no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature established during the performance test. Operators shall perform a monthly visual inspection to verify that the Desorption / Reactivation Fan is operating properly. Another pressure sensor with an alarm will continuously monitor the pressure drop across the adsorber trays to ensure carbon is properly flowing through the system. To test the VOC concentrator's performance, representative samples and the adsorbent activity shall be tested according to the manufacturer's recommendations on an annual basis; alternatively, portable ionization detectors may be used to conduct this annual performance test. An alarm shall alert operators of any periods during which the by-pass damper diverts flow from the VOC concentrator. |
| <b>Indicator Range:</b><br>The minimum operating limit for the concentrator is 8°C below the average desorption gas inlet temperature maintained during the last performance test. The set point for the desorption gas inlet temperature is no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature maintained during the performance test. Any 3-hour block average combustion temperature reading below the minimum operating limit will be considered an excursion.   |

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****Performance Criteria:****Data Representativeness:**

The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:**

The permittee shall keep records of continuous desorption gas inlet temperature readings onsite and made available for inspection.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate desorption gas inlet temperature data, spare thermocouples shall be kept onsite and the permittee shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:**

The desorption gas inlet temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the annual performance tests will be maintained on site.

**Corrective Action:**

When an out-of-range temperature reading occurs, the permittee shall check the VOC concentrator to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**ii. Continuous Assurance Monitoring Approach Summary for the Thermal Oxidizers (TT11 and TT13) Controlling VOC Emissions from F22:****Indicator**

**Parameter:** Combustion chamber temperature

**Measurement Approach:**

The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 95%.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)**

**Indicator Range:** The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.

**Performance Criteria:**

**Data Representativeness:** The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:** The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:** The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:** The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.

**Procedures Corrective Action:** When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****g. MONITORING APPROACH FOR PLASTIC BUMPER AND ROCKER PAINT  
BOOTH (EP# G26)****VOC Background for Emission Point G26****Emission Unit****Emission point** G26 Plastic Bumper and Rocker Painting Operations

**Description:** Plastic bumpers and rockers are painted in three booths. There are heated flash off zones after the primer and basecoat booths and a curing oven after the clearcoat booth. All booths employ a capture system. Emissions from primer booth, basecoat booth and heated flash offs are routed to RT12 RTO as primary control and VOC Concentrator RC06 and Thermal Oxidizers RT10 for VOC control as backup control.

Emissions from the clearcoat booth are routed to RT12 RTO as primary control and VOC Concentrator RC03 and Thermal Oxidizer RT07 for VOC control as backup control devices.

**Pollutant: VOC****Applicable Regulations:****401 KAR 51:017:**

**Emission Limitations:** The permittee shall not cause the discharge into the atmosphere of more than 0.88 lbs of VOC per job.

**i. Continuous Assurance Monitoring Approach Summary for the VOC Concentrators  
(RC03 & RC06) Controlling VOC Emissions from G26 (Alternate Operating  
Scenario Only)****Indicator: Parameter:**

Desorption gas inlet temperature

**Measurement Approach:**

The Permittee shall continuously monitor the thermocouple temperature of the desorption gas inlet to ensure that it does not fall more than 8°C below the average desorption gas inlet temperature established during the performance test. The Permittee shall keep the set point for the desorption gas inlet temperature no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature established during the performance test. Operators shall perform a monthly visual inspection to verify that the Desorption / Reactivation Fan is operating properly. Another pressure sensor with an alarm will continuously monitor the pressure drop across the adsorber trays to ensure carbon is properly flowing through the system. To test the VOC concentrator's performance, representative samples and the adsorbent activity shall be tested according to the manufacturer's recommendations on an annual basis; alternatively, portable ionization detectors may be used to conduct this annual performance test. An alarm shall alert operators of any periods during which the by-pass damper diverts flow from the VOC concentrator.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****Indicator Range:**

The minimum operating limit for the concentrator is 8°C below the average desorption gas inlet temperature maintained during the last performance test. The set point for the desorption gas inlet temperature is no lower than 6°C below the lower of that set point during the performance test and the average desorption gas inlet temperature maintained during the performance test. Any 3-hour block average combustion temperature reading below the minimum operating limit will be considered an excursion.

**Performance Criteria:****Data Representativeness:**

The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:**

The permittee shall keep records of continuous desorption gas inlet temperature readings onsite and made available for inspection.

**QA and QC Practices and Criteria:**

The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate desorption gas inlet temperature data, spare thermocouples shall be kept onsite and the permittee shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:**

The desorption gas inlet temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the annual performance tests will be maintained on site.

**Corrective Action:**

When an out-of-range temperature reading occurs, the permittee shall check the VOC concentrator to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****ii. Continuous Assurance Monitoring Approach Summary for the Thermal Oxidizers (RT07 and RT10) Controlling VOC Emissions from G26 (Alternate Operating Scenario Only):****Indicator****Parameter:** Combustion chamber temperature**Measurement Approach:**

The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 95%.

**Indicator Range:** The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.

**Performance Criteria:**

**Data Representativeness:** The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:** The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:** The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:** The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.

**Procedures Corrective Action:** When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.



**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS  
(CONTINUED)****iii. Continuous Assurance Monitoring Approach Summary for the Regenerative Thermal Oxidizers (RT12) Controlling VOC Emissions from G26:****Indicator**

**Parameter:** Combustion chamber temperature

**Measurement Approach:**

The permittee shall continuously monitor the temperature of the combustion chamber using a thermocouple to ensure that it does not fall more than 28 °C below the average combustion chamber temperature maintained during the performance test. The permittee shall also conduct a stack test every 5 years according to USEPA Method 25A to verify that the destruction efficiency has not fallen below 81%.

**Indicator Range:** The temperature must be maintained at no more than 28 °C below the combustion chamber temperature limit. Any 3-hour block average combustion temperature reading outside this range shall be considered an excursion.

**Performance Criteria:**

**Data Representativeness:** The temperature monitoring device shall be located in the combustion zone. The tolerance of the thermocouple and the sensitivity of the recordkeeping system shall be determined based on manufacturer's recommendations.

**Verification of Operational Status:** The permittee shall keep records of continuous combustion temperature readings onsite and made available for inspection.

**QA/QC Practices and Criteria:** The permittee shall follow the manufacturer's recommendations for installation, operation, maintenance, and calibration of the temperature monitoring device. The permittee shall calibrate the thermocouple on an annual basis. To ensure that monitoring device malfunctions do not prevent the collection of accurate combustion temperature data, spare thermocouples shall be kept onsite and operators shall replace malfunctioning thermocouples if necessary as soon as is practicable once a malfunction is recognized.

**Monitoring Frequency and Data Collection Procedures:** The combustion temperature shall be monitored continuously and recorded in 15-minute periods. The consecutive 15-minute blocks shall be utilized to determine the 3-hour block average for compliance purposes. The permittee shall tabulate and maintain these temperature measurements in an electronic database. Records of the stack tests will be maintained on site.

**Procedures Corrective Action:** When an out-of-range temperature reading occurs, operators shall check the oxidizer system to ensure proper operation. If any of these checks indicate abnormal operation, the permittee shall inspect all potentially malfunctioning components of the offending system. Once the source of the malfunction is determined, the problem shall be remedied as soon as practicable after the malfunction is recognized by repairing or replacing the malfunctioning component of the system.

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of 5 years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit;
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every 6 months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

**SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
  - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
  - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
  - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;

**SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

- d. The method used for determining the compliance status for the source, currently and over the reporting period.
- e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality  
Frankfort Regional Office  
300 Sower Boulevard, 1<sup>st</sup> Floor  
Frankfort, KY 40601

U.S. EPA Region 4  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth St. SW  
Atlanta, GA 30303-8960

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

## SECTION G - GENERAL PROVISIONS

### 1. General Compliance Requirements

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
  - (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
  - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) b].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) d.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) a.].

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (1) Applicable requirements that are included and specifically identified in this permit; and
  - (2) Non-applicable requirements expressly identified in this permit.

### **2. Permit Expiration and Reapplication Requirements**

- a. This permit shall remain in effect for a fixed term of 5 years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least 6 months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

### **3. Permit Revisions**

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

**SECTION G - GENERAL PROVISIONS (CONTINUED)****4. Construction, Start-Up, and Initial Compliance Demonstration Requirements**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission units A03, A05, A09, A10 (Case ED Coating Repair), A14, C02, C03, C06, C08, C09, C14, C17, C18, D06k, E02R, E05R, E04R, E07R, E09R, E11R, E13R, G14b, G21 and G22 as a part of the EV battery modification to Line #1, D07 addition of two 35 HP Emergency Generators, and F04 spray applicator and pumping system replacement for the Line #2 Damping Coat Area in accordance with the terms and conditions of this permit (V-20-026 R3).

- a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
  - (1) The date when construction commenced.
  - (2) The date of start-up of the affected facilities listed in this permit.
  - (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055,



**SECTION G - GENERAL PROVISIONS (CONTINUED)**

General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

**5. Testing Requirements**

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

**6. Acid Rain Program Requirements**

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NO<sub>x</sub> compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

**7. Emergency Provisions**

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:

- (1) An emergency occurred and the permittee can identify the cause of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
- (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- (5) This requirement does not relieve the source of other local, state or federal notification requirements.

- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

**8. Ozone Depleting Substances**

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
  - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

### 9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP\* eSubmit software.
- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

**SECTION H - ALTERNATE OPERATING SCENARIOS**

None

**SECTION I - COMPLIANCE SCHEDULE**

None