



Louisville Metro Air Pollution Control District  
 701 West Ormsby Avenue, Suite 303  
 Louisville, Kentucky 40203-2624



**December 7, 2018**

**Title V Statement of Basis**

**Source:** Ford Motor Company – Louisville Assembly Plant

**Owner:** Ford Motor Company

**Plant Location:** 2000 Fern Valley Road, Louisville, KY 40213

**Date Application Received:** 04/13/2015

**Application Number:** 70631

**Date of Draft Permit:** 10/04/2018

**District Engineer:** Shannon Hosey

**Permit No:** O-0072-18-V

**Plant ID:** 0072

**SIC Code:** 3711

**NAICS:** 336211

**Introduction:**

This permit will be issued pursuant to: (1) APCD Regulations 2.05 and 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), 1 hr and 8 hr ozone (O<sub>3</sub>), and particulate matter less than 10 microns (PM<sub>10</sub>); and unclassifiable for the 2012 standard for particulate matter less than 2.5 microns (PM<sub>2.5</sub>); and partial non-attainment area for sulfur dioxide (SO<sub>2</sub>).

**Application Type/Permit Activity:**

- Initial Issuance
- Permit Revision
  - Administrative
  - Minor
  - Significant
- Permit Renewal
- Construction

**Compliance Summary:**

- Compliance certification signed
- Source is out of compliance
- Compliance schedule included
- Source is operating in compliance

## I. Source Information

1. **Product/Process Description:** Manufacture of automobiles.
2. **Project Description:** Vehicle bodies are manufactured in the body shop and then cleaned in the phosphate cleaning operation. After phosphate treatment, vehicle bodies receive a corrosion treatment in the electrocoated (e-coat) system to provide corrosion protection. The e-coat process involves immersing the metal bodies, which are grounded, into a bath of electrically charged water based e-coat. The e-coat is deposited on the bodies as they are conveyed through the dip tank. The e-coat is heat-cured to the vehicle body in a high-temperature bake oven. After completing the e-coat operation, vehicle bodies are conveyed to the sealer area for application of various sealants to body seams and joints. The vehicle is passed through an oven to cure the applied sealers.

After the sealer oven, the vehicles are routed to one of the 3-Wet paint booths. The vehicle is painted with primer, a color basecoat and a protective clearcoat layer utilizing automatic bells on robots spray applicators. The vehicle passes through an oven to cure the 3-Wet applications. The 3-Wet booth allows for paint application one layer after the other without an intermediate drying process. After the painting process, the vehicle is directed to final assembly.

3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U002-U004	Five (5) Boilers
U008	Volatile Organic Liquid Storage Tanks
U009	Glass Installation
U010	E-Coat Operation
U011/U012	Guidecoat (Primer) and Topcoat (Basecoat) Operations – 3-Wet System (prime/basecoat/clearcoat)
U013	Plant-wide Product Fueling
U014/U022	Paint Equipment Cleaning Operation
U015	Sealer Deck
U016	Final Repair Spray Booth
U023	Phosphate Operation
U024	Emergency Engines

### 5. Permit Revisions

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	147-97-TV	01/31/2000	11/21/1999	Initial	Entire Permit	Initial Permit Issuance
R1	147-97-TV (R1)	9/17/2010	7/19/2010	Initial/Renewal	Entire Permit	5 year Renewal; Incorporate PAL, STAR TAC requirements, RO change, DRE for E-coat control device change and 112(J) Part 1 & 2 applications.
R2	147-97-TV (R1)	3/31/2011	NA	Admin Revision	Pages 43,45 and 50	Revision to include permit 229-96-O, add NOx RACT language and correct Methanol Tank Vapor Pressure
NA	O-0072-18-V	NA	07/14/2018	Renewal	Entire Permit	Renewal
R1	O-0072-18-V (R1)	12/07/2018	10/04/2018	Renewal	Entire Permit	<ul style="list-style-type: none"> <li>• Change to PAL monitoring and recordkeeping section to require thermal oxidizer valve assessments to be conducted every 18 months instead of annually</li> <li>• Correction to the 40 CFR Subpart DDDDD requirement for Boiler E06 to be conducted biennially instead of annually</li> </ul>

**6. Application Documents**

Document Number	Date Received	Description
00090845	2/16/2018	Company's Uncontrolled PTE
00090846	2/14/2018	Company's Updated Modeling
70631	4/13/2015	Permit renewal application
68427	12/16/2014	AP-100A Admin Change

**7. Plant-wide Emission Summary:**

Pollutant	Actual Emissions (tpy) 2016 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	50.45	Yes
NO <sub>x</sub>	60.03	Yes
SO <sub>2</sub>	0.36	No
PM	7.90	No
PM <sub>10</sub>	6.34	No
VOC	558.97	Yes
<b>Single HAP &gt; 1 tpy</b>		
Methanol	1.87	Yes
Xylene	12.38	Yes
Toluene	2.08	Yes
Ethylbenzene	2.64	Yes
Hexane	1.08	Yes
Naphthalene	2.62	Yes
<b>Total HAPs</b>	<b>36.93</b>	<b>Yes</b>

**8. Plant-wide Applicability Limits:**

Plant-wide Applicability Limits <sup>1</sup>	
Pollutant	Tons/12-Month Rolling
VOC	1,316
PM	21.2
PM <sub>10</sub>	21.2
PM <sub>2.5</sub>	17.2
NO <sub>x</sub>	99.0
SO <sub>2</sub>	39.33
CO	151.4

<sup>1</sup> The Plant-wide Applicability Limit(s) (PAL) are set at levels equal to the baseline determination submitted by Ford Motor Company February 2, 2009 and historical actual emission levels.

**9. Applicable Requirements:**

<input checked="" type="checkbox"/> PSD	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP	<input checked="" type="checkbox"/> MACT
<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NESHAPS	<input checked="" type="checkbox"/> District-Origin	<input type="checkbox"/> BACT

**10. Referenced Federal Regulations in Permit:**

40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR 60 Subpart MM	National Emission Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations
40 CFR 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR 63 Subpart IIII	National Emission Standards for Hazardous Air Pollutants – Surface Coating of Automobile and Light Duty Trucks
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR 63, Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

**II. Regulatory Analysis****1. Acid Rain Requirements:**

The source is not subject to the Acid Rain Program.

**2. Stratospheric Ozone Protection Requirements:**

This source does not manufacture, sell, or distribute any of the chemicals listed in title VI of the CAAA. Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that

manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

**3. Prevention of Accidental Releases 112(r):**

The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount. If the source becomes subject to 40 CFR 68 and Regulation 5.15, the source shall comply with the Risk Management Program and Regulation 5.15 and submit a Risk Management Plan to:

RMP Reporting Center  
P.O. Box 3346  
Merrifield, VA 22116-3346

**4. 40 CFR Part 64 Applicability Determination:** Ford Motor Company – Louisville Assembly Plant is subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.

**5. Applicable Regulations**

Regulation	Title	Type
1.05	Compliance with Emission Standards and Maintenance Requirements	SIP
1.18	Rule Effectiveness	SIP
2.03	Permit Requirements – Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements	SIP
2.05	Prevention of Significant Deterioration of Air Quality	SIP
40 CFR 52.21	Prevention of Significant Deterioration of Air Quality	Federal
2.16	Title V Operating Permits	SIP
6.07	Standards of Performance for Existing Indirect Heat Exchangers	SIP
6.17	Standards of Performance for Existing Automobile and Truck Surface Coating Operations	SIP
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	SIP
6.42	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound	SIP
7.01	General Provisions	SIP
7.06	Standards of Performance for New Indirect Heat Exchangers	SIP
7.08	Standards of Performance for New Process Operations	SIP
7.12	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	SIP
7.15	Standards of Performance for New Process Operations	SIP
7.25	Standards of Performance for New Source Using Volatile Organic Compounds	SIP

<b>Regulation</b>	<b>Title</b>	<b>Type</b>
7.59	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	SIP
5.00	Definitions	Local
5.01	General Provisions	Local
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	Local
5.14	Hazardous Air Pollutants and Source Categories	Local
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	Local
5.23	Categories of Toxic Air Contaminants	Local
40 CFR 60 Subpart A	General Provisions	Federal
40 CFR 60 Subpart MM	National Emission Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations	Federal
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Federal
40 CFR 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Federal
40 CFR 63 Subpart A	General Provisions	Federal
40 CFR 63 Subpart IIII	National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks	Federal
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Federal
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	Federal
40 CFR 63, Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	Federal

## 6. Basis of Regulation Applicability

<b>Regulation</b>	<b>Title</b>
1.05	Compliance with Emission Standards and Maintenance Requirements
1.18	Applies to sources in Regulation 6.43, sources with actual annual VOC emissions of 50 tons or more, and to sources with affected facilities subject to other VOC control requirements in Regulations 6 or 7
2.03	Permit Requirements – Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.05	Prevention of Significant Deterioration of Air Quality
40 CFR 52.21	Prevention of Significant Deterioration of Air Quality

<b>Regulation</b>	<b>Title</b>
2.16	Title V Source
6.07	Applies to boilers with heat generating capacities greater than 1 mmbtu/hr, modified before April 9, 1972, for PM and SO <sub>2</sub> .
6.17	Applies to each existing auto and truck manufacturing facility which was in being or had a construction permit issued by the District before June 13, 1979.
6.18	Applies to cold cleaners.
6.42	Applies to boilers emitting amounts of NO <sub>x</sub> over 100 tpy for major nitrogen oxides emitting facilities.
7.01	Establishes general requirements for new affected facilities.
7.06	Applies to each indirect heat exchanger having input capacity of more than one million BTU per hour commenced after September 1, 1976.
7.08	Establishes requirements for new processes that are subject to PM standards and were installed after September 1, 1976.
7.12	Applies to VOC storage tanks greater than 250 gallon capacity which were installed after April 19, 1972.
7.15	Standards of Performance for Gasoline Transfer to New Service Station Storage Tanks (Stage I Vapor Recovery)
7.25	Applies to each existing auto and truck manufacturing facility which was in being or had a construction permit issued by the District before June 13, 1979
7.59	The glass installation operation is subject to the VOC emission standard in Regulation 7.59 and was installed after September 1, 1976.
5.00, 5.01, 5.20, 5.21, 5.22, 5.23	Establish the requirements for Environmental Acceptability for TACs.
5.14	Establishes the hazardous air pollutants regulated by the District and the major and minor source categories of HAPs.
40 CFR 60 Subpart A	General Provisions
40 CFR 60 Subpart MM	Applies to the following affected facilities in an automobile or light-duty truck assembly plant: each prime coat operation, each guide coat operation, and each topcoat operation
40 CFR 60 Subpart Dc	Applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h)
40 CFR Part 60 IIII	Applies to stationary CI internal combustion engines that commence construction after July 11, 2005.
40 CFR 63 Subpart A	General Provisions
40 CFR 63 Subpart IIII	Establishes national emission standards for hazardous air pollutants (NESHAP) for facilities which surface coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks.
40 CFR 63 Subpart EEEE	Establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP



Regulation	Title
	emissions.
40 CFR 63 Subpart ZZZZ	Establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions.
40 CFR 63 Subpart DDDDD	Establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters.

**a. Plant-wide STAR Limits**

**i. TAC**

- a) Regulations 5.00, 5.01, 5.20, 5.21, 5.22 and 5.23 (STAR Program) establishes requirements for environmental acceptability of the emission of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.
- b) The facility submitted the TAC Environmental Acceptability (EA) Demonstration to the District in December 2016. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. Based on AERMOD air modeling, the maximum off-site  $R_{NC}$  for all process/process equipment is less than 1.0, the source has demonstrate compliance with the EA Goals for each TAC.

**b. Plant-wide Limits**

**i. Standards**

- a) [See Plant-wide Applicability Limits Table.](#)
- b) The company has taken a 99 tons during any consecutive 12-month period limit in order to stay below NO<sub>x</sub> RACT applicability threshold per Regulation 6.42.

**ii. Monitoring and Recordkeeping**

District Regulation 2.16, section 4.1.9.1 and 4.1.9.2 requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

iii. **Reporting**

District Regulation 2.16, section 4.3.5, requires stationary sources for which a Title V is issued shall submit an annual compliance certification by April 15. In addition, as required by District Regulation 2.16, section 4.1.9.3, the source shall submit compliance reports at least every six months to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per District Regulation 2.16, section 3.5.11.

c. **Emission Unit U002-U004 – Five Boilers**

i. **Equipment:**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
E02A	One (1) powerhouse Wickes boiler; rated at 146 MM Btu/hr; natural gas-fired with propane backup.	1954	STAR*, 6.07, 6.42 and 40 CFR 63 Subpart DDDDD
E04A	One (1) Cleaver-Brooks dock boiler (No. 1); rated at 63.6 MM Btu/hr; natural gas-fired with propane backup.	1995	STAR*, 7.06, 6.42, 40 CFR 60 Subpart DC and 40 CFR 63 Subpart DDDDD
E04B	One (1) Cleaver-Brooks boiler (No. 2); 63.6 MM Btu/hr; natural gas-fired, with propane backup.	1995	
E05	Two (2) hot water boilers; 33.5 MM Btu/hr; natural gas-fired.	1996	STAR*, 7.06 and 40 CFR 60 Subpart DC
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

ii. **Standards/Operating Limits**

a. **HAP**

Emission Points E04A, E04B and E05 are subject to 40 CFR 63 Subpart DDDDD.

b. **NO<sub>x</sub>**

Regulation 6.42 requires the owner or operator shall not allow the NO<sub>x</sub> emissions to exceed 99 tons during any consecutive 12-month period in order to avoid NO<sub>x</sub> RACT.

c. **Opacity**

Regulation 6.07, section 3.2 and 7.06, section 5.1.1 establishes an opacity standard of less than 20%.

d. **PM**

The emission standard for PM is determined in accordance with Regulation 6.07, section 3.1 and 7.06, section 4.1.4.

e. **SO<sub>2</sub>**

i. For Emission Point E02A the emission standard for SO<sub>2</sub> is determined in accordance with Regulation 6.07, section 4.1.

ii. For Emission Point E04A, E04B and E05 the emission standard for SO<sub>2</sub> is determined in accordance with Regulation 7.06, section 5.1.1.

iii. Emission Points E04A, E04B and E05 are subject to 40 CFR 60, Subpart Dc. However, there is no SO<sub>2</sub> emission standard for natural gas fired boilers in Subpart Dc.

f. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

d. **Emission Unit U008 - Volatile Organic Liquid Storage Tanks**i. **Equipment:**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
E08A	6000 Gallon Methanol Tank, Submerged Fill	2002	STAR*, 40 CFR 63 Subpart EEEE and 7.12
E08G	Two (2) 7,500 Gallon Solvent Tank	-	STAR* and 7.12
E08M	20,000 Gallon Anti-Freeze Tank	1990	STAR* and 7.12
E08N	20,000 Gallon Power Steering Fluid Tank	1990	STAR* and 7.12
E08O	6000 Gallon Brake Fluid Tank	1980	STAR* and 7.12
E08P	20,000 Gallon Diesel Fuel Tank	-	STAR* and 7.12
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

ii. **Standards/Operating Limits**

a. **HAP**

40 CFR 63 Subpart EEEE, establishes national emission limitations, operating limits, and work practice standards for Emission Point E08A.

b. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

c. **VOC**

Regulation 7.12, section 3.3 requires submerged fill if the materials have an as stored vapor pressure of 1.5 psia or greater. Regulation 7.12 applies due to the size of the tanks, however, since the vapor pressure as stored is less than 1.5 psia there are no applicable emission or equipment standards.

e. **Emission Unit U009 - Glass Installation**

i. **Equipment**

Emission Point	Description	Installation Date	Applicable Regulation
E009	Glass, Windshield, and Back Lights Installation	1994	STAR*, 7.59 and 40 CFR 63 Subpart III
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

ii. **Standards/Operating Limits**

a. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

b. **VOC**

Regulation 7.59, section 3.1.3 requires the source shall not cause or allow the emission of VOC from any affected facility resulting from the coating of metallic surfaces in excess of 0.42 kg of VOC/l (3.5 lb VOC/gal) of coating, excluding water and exempt solvents, as applied for extreme

performance coatings.

**f. Emission Unit U010 - E-Coat Operation**

**i. Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E10A	E-Coat Dip Tank	1996	STAR*, 6.17, 7.01, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	N/A
E10B	E-Coat Oven	1988	STAR*, 6.17, 7.01, 7.08, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	C10A
E10C	E-Coat Oven (3 <sup>rd</sup> Pass)	1996		C10B
E10D	E-Coat Dump Metal AST	1996	STAR*, 6.17, 7.01, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	N/A
E17A	E-Coat Scuff Booth	1989	STAR* and 7.08	C17A
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.				

<b>ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
C10A	One (1) Regenerative Thermal Oxidizer (RTO)	Temperature	S-041, S-043, S-045
C10B	One (1) Regenerative Thermal Oxidizer (RTO)	Temperature	S-020 to S-022, S-050
C17A	Dry Panel Filter	N/A	S-047, S-048

**ii. Standards/Operating Limits**

**a. HAP**

The E-Coat Operation is subject to 40 CFR Part 63, Subpart III.

**b. NO<sub>x</sub>**

Regulation 7.08, section 4 requires NO<sub>x</sub> fumes shall not exceed 300 ppm by volume expressed as NO<sub>2</sub>. Using AP-42 emission factors for combustion of natural gas, the NO<sub>x</sub> emission standard cannot be exceeded by any of the natural gas burners which are part of this emission point.

**c. Opacity**

Regulation 7.08, section 3.1.2 establishes an opacity standard of less than 20%.

d. **PM**

The PM limits are calculated per Regulation 7.08, section 3.1.2. The equation to calculate the emission limits is  $E = 3.59P^{0.62}$ , where P is expressed in tons/hr.

e. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

f. **VOC**

The E-Coat Operation is subject to 40 CFR 60, Subpart MM.

g. **Emission Unit U011/U012 – Guidecoat (Primer) and Topcoat (Basecoat) Operations – 3-Wet System (prime/basecoat/clearcoat)**

i. **Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E11A/ E12A	Guidecoat (Primer)/North Main Enamel Booth and Air Supply (North 3-Wet Booth)	STAR*, 6.17, 7.01, 7.08, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	C12A, C12E, C12G, C12B, C12C and C12H
E11B <sup>2</sup>	Touchup and Blackout Booth	N/A	N/A
E11C/E12 B	North Main Enamel Oven	STAR*, 6.17, 7.01, 7.08, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	C12D
E11A/E12 C	Guidecoat (Primer)/South Main Enamel Booth and Air Supply House (South 3-Wet Booth)	STAR*, 6.17, 7.01, 7.08, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	C12A, C12E, C12G, C12B, C12C and C12H
E11D/E12 D	South Main Enamel Oven	STAR*, 6.17, 7.01, 7.08, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	C12D
E11E/E12 G	Guidecoat (Primer)/Topcoat Kitchen	STAR*, 6.17, 7.01, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart III	N/A

<sup>2</sup> This touchup/blackout (E11B) booth is onsite but no longer in use. It is now a pass through point on the paint line with no materials being applied.

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E12E/E12 F <sup>3</sup>	TuTone/Repair Topcoat Booth and Oven	N/A	N/A
E12E/E12 F <sup>3</sup>	TuTone/Repair Topcoat Booth and Oven	N/A	N/A
E12H	Topcoat Scuff Booth	7.08	C19A
E12I	TuTone/Repair Scuff Booth	7.08	C20A
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

<b>Control ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
C12A	Water Wash	N/A	S-125 to S149
C12E	Water Wash	N/A	S-150 to S174
C12B	Carbon Adsorber and Fluidized Bed Carbon Concentrator	VOC Concentrations	S-204
C12G	Carbon Adsorber and Fluidized Bed Carbon Concentrator	VOC Concentrations	S-439
C12C	Regenerative Thermal Oxidizer (RTO) Salem	Temperature	S-438
C12H	Regenerative Thermal Oxidizer (RTO) Eisenmann	Temperature	S-203
C12D	Regenerative Thermal Oxidizer (RTO) Durr	Temperature	S-215
C19A	Dry Panel Filter	N/A	S-183 and S-184
C20A	Dry Panel Filter	N/A	S-185 and S-186

ii. **Standards/Operating Limits**

a. **HAP**

The Guidecoat (Primer) and the Topcoat operations are subject to 40 CFR Part 63 Subpart IIII.

b. **NO<sub>x</sub>**

Regulation 7.08, section 4 requires NO<sub>x</sub> fumes shall not exceed 300 ppm by volume expressed as NO<sub>2</sub>. Using AP-42 emission factors for combustion of natural gas, the NO<sub>x</sub> emission standard cannot be exceeded by any of the natural gas burners which are part of this emission point.

---

3 The TuTone/Repair Topcoat Booth and Oven (E12E/E12F) are onsite but no longer in use. The booth is now a pass through point on the paint where no materials are applied.

c. **Opacity**

Regulation 7.08, section 3.1.2 establishes an opacity standard of less than 20%.

d. **PM**

The PM limits are calculated per Regulation 7.08, section 3.1.2. The equation to calculate the emission limits is  $E = 3.59P^{0.62}$ , where P is expressed in tons/hr.

e. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

f. **VOC**

The Guidecoat (Primer) and the Topcoat operations are subject to 40 CFR 60 Subpart MM.

**h. Emission Unit U013 – Plant-wide Gasoline Fueling**

i. **Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
E13A	Gasoline Tank #1 20,000 gallons	1990	STAR* and 7.15
E13B	Gasoline Tank #2 20,000 gallons	1990	STAR* and 7.15
E13C	Gasoline Tank #3 20,000 gallons	1990	STAR* and 7.15
E13D	Two Fueling Stations with Vapor Recovery	1994	N/A
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

ii. **Standards/Operating Limits**

a. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

b. **VOC**

Regulation 7.15 requires that storage tanks shall be equipped with the following:



- 1) A submerged fill pipe;
- 2) If equipped with a separate gauge well, a gauge well drop tube shall be installed which extends to within six inches of the bottom of the tank;
- 3) Vent line restrictions on the affected facility; and
- 4) Vapor balance system and vapor tight connections on the liquid fill and vapor return hoses.

**i. Emission Unit U014/U022 – Paint Equipment Cleaning Operation**

**i. Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
E14	Paint Equipment Cleaning Booth	1985	STAR*, 7.25 and 40 CFR 63 Subpart III
E22A	Paint Equipment Purging and Plant Cleaning	1976	
N/A	Solvent Metal Cleaning Equipment	N/A	STAR* and 6.18
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

**ii. Standards/Operating Limits**

**a. HAP**

The Paint Equipment Cleaning Operation is subject is subject to 40 CFR Part 63, Subpart IIII - Surface Coating of Automobiles and Light-Duty Trucks.

**b. TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

**c. VOC**

- 1) The source shall follow the procedure to minimize VOC emissions from purge and cleaning operations under Regulation 7.25, section 3.
- 2) For all cold solvent parts washers, the source shall comply with the standards of Regulation 6.18, sections 4.1 through 4.3.

**j. Emission Unit U015 - Sealer Deck****i. Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
E15A	Sealer Application	N/A	STAR* and 7.59
E15B	Sealer Gel Oven	N/A	STAR*, 7.08 and 40 CFR 63 Subpart III
N/A	Sealers and Deadeners (other than glass bonding)	N/A	STAR* and 40 CFR 63 Subpart III
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

**ii. Standards/Operating Limits****a. HAP**

The Sealer Deck is subject is subject to 40 CFR Part 63, Subpart III.

**b. NO<sub>x</sub>**

Regulation 7.08, section 4 requires NO<sub>x</sub> fumes shall not exceed 300 ppm by volume expressed as NO<sub>2</sub>. Using AP-42 emission factors for combustion of natural gas, the NO<sub>x</sub> emission standard cannot be exceeded by any of the natural gas burners which are part of this emission point.

**c. TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

**d. VOC**

Regulation 7.59, section 3.1.3. requires the source shall not cause or allow the emission of VOC from any affected facility resulting from the coating of metallic surfaces in excess of 3.5 lb VOC/gal of coating, excluding water and exempt solvents, as applied for extreme performance coatings.

**k. Emission Unit U016 – Final Repair Spray Booth****i. Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E16A	Final Repair Booth	1982	STAR* 7.01, 7.08, 40 CFR 60 Subpart MM and 40 CFR 63 Subpart IIII	C16A
E16B	Final Repair Oven	1982		N/A
E16C	Final Repair Spot Paint	1982		N/A
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.				

<b>ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
C16A	Dry Panel Filter	N/A	S-187, S-188

**ii. Standards/Operating Limits****a. HAP**

The Guidecoat (Primer) and the Topcoat operations are subject to 40 CFR Part 63 Subpart IIII.

**b. NO<sub>x</sub>**

Regulation 7.08, section 4 requires NO<sub>x</sub> fumes shall not exceed 300 ppm by volume expressed as NO<sub>2</sub>. Using AP-42 emission factors for combustion of natural gas, the NO<sub>x</sub> emission standard cannot be exceeded by any of the natural gas burners which are part of this emission point.

**c. Opacity**

Regulation 7.08, section 3.1.2 establishes an opacity standard of less than 20%.

**d. PM**

The PM limits are calculated per Regulation 7.08, section 3.1.2. The equation to calculate the emission limits is  $E = 3.59P^{0.62}$ , where P is expressed in tons/hr.

**e. TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

f. **VOC**

The Guidecoat (Primer) and the Topcoat operations are subject to 40 CFR 60 Subpart MM.

l. **Emission Unit 023 – Phosphate Operation**i. **Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
E1000	Phosphate	1996	STAR*
E1001	Phosphate Dump Tank, 127,000 gallons	1996	STAR*
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

ii. **Standards/Operating Limits****TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels.

m. **Emission Unit U024 – Emergency Engines**i. **Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>
EFP1	#1 Diesel Fire Pump	2014	STAR* 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII
EFP2	#2 Diesel Fire Pump, Detroit Diesel PTA-Y2 SD.30, 180 HP	1973	
EFP3	#3 Diesel Fire Pump, Detroit Diesel 1800, 300HP	1995	
EEG1	WWT Emergency Generator	1983	STAR*, 40 CFR 63 Subpart ZZZZ
EEG2	Guard Building Emergency Generator	2001	STAR*, 40 CFR 63 Subpart ZZZZ
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

ii. **Standards/Operating Limits**a. **HAP**

i. The Emergency Generators are subject to 40 CFR Part 63 Subpart ZZZZ.

- ii. The fire pumps are subject to 40 CFR Part 60 IIII and 40 CFR Part 63 Subpart ZZZZ.

- a. **TAC**

Per Regulations 5.00 and 5.21, TAC emissions shall not exceed environmentally acceptable levels. STAR Regulation 5.01, section 1.6.7 states the TACs from natural combustion are De Minimis.

### III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report ant short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility:** The source did not request any operational flexibility for the facility.
5. **Compliance History:**

Incid. #	Date	Regulation Violated	Settlement
06374	08/27/13	2.16 section 5.02 and 1.07 section 4.07 On two occasions, the company operated process equipment without properly functioning control devices and didn't report properly.	Violation
06454	07/25/13	2.16 section 5.02 and 1.07 section 4.01 The company reported exceeding a permit limit while operating without controls.	Violation
06493	07/30/12	The 4 <sup>th</sup> quarter MACT report for IIII was 3 weeks late.	Letter
06550	09/04/13	2.16 section 5.02 and 1.07 section 4.01 The company operates process equipment without the control devices required in their Title V permit and does not submit Regulation 1.07 excess emission reports for the events.	Violation

6. **Calculation Methodology:**

- i. Combustion emissions are calculated using AP-42 emission factors with the exception of NOx for the boilers. Boiler Testing Results of 0.097 lbs./MMBTU From Testing In 2013.

## ii. VOC Emissions:

Mass balance calculations or other method approved in writing by the District can be used for sealer, black-out/wax, glass installation and purge/cleaning solvent operations, and all other VOC emission units:

$$VOCValue = \sum_{i=1}^n U_i V_i (1 - C_i D_i)$$

Where:

U = material usage

V = VOC content

C = capture efficiency

D = destruction efficiency

i = number of operating days

## iii. Daily usage of each material can be prorated from monthly values based on daily production or other method approve in writing by the District:

$$U_{Daily} = U_{Monthly} \frac{P_{Daily}}{P_{Monthly}}$$

Where:

U<sub>Daily</sub> = material usage for a particular calendar day

U<sub>Monthly</sub> = recorded material usage for a particular month

P<sub>Daily</sub> = recorded vehicle production for a particular day

P<sub>Monthly</sub> = total vehicle production for a particular month

## iv. HAPs and VOC are calculated by a program which tracks all product usage in various emission units and the HAP and VOC content in the materials. It is assumed that the program takes the control devices into account when calculating emissions.

v. NOx and PM/PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emissions shall be determined using prorated usage rates and latest available U.S. EPA AP-42 emissions factors or vendor emissions data or other methods approved by the District:

$$NOx/PMa = \sum_{i=1}^n U_i E_i F_i$$

Where:

a = PM subscript for total PM, PM<sub>10</sub>, or PM<sub>2.5</sub>

U = material usage

EF = emission factor

i = number of operating months

## 7. Insignificant Activities:

Equipment	Quantity	PTE (tpy)	Regulation Basis
Diesel or fuel oil storage tanks that are not used for distribution, sale or resale, and that have less than two times the capacity of the vessel in annual turnover of the fluid contained.	5	VOC = 0.0005 <sup>4</sup>	Regulation 1.02, Appendix A, Section 3.25
Brazing, soldering or welding equipment	~ 1.2 Billion Weld/yr	PM <sub>10</sub> = 0.34 tpy	Regulation 1.02, Appendix A, Section 3.4
All pressurized VOC storage vessels.	~ 75	VOC < 0.01 each	Regulation 1.02, Appendix A, Section 3.26
Those less than 10 million BTU/hr capacity using distillate oil, propane, butane, LPG, or natural gas as fuel.	~105 <sup>4</sup>	NO <sub>x</sub> = 4.385	Regulation 1.02, Appendix A, Section 1.1
Equipment commonly used in wood-working operations, except for conveying, hogging or burning of sawdust or wood waste.	1	PM <sub>10</sub> = 0.25	Regulation 1.02, Appendix A, Section 3.5
Laboratory ventilating and exhausting systems which are not used for radioactive air contaminants.	3	VOC = 1	Regulation 1.02, Appendix A, Section 3.11
Process, exhaust or ventilating systems in bakeries or eating establishments preparing food for human consumption	1	NO <sub>x</sub> = 0.87	Regulation 1.02, Appendix A, Section 3.12
Dust or particulate collectors that are located in-doors, vent directly indoors into the work space, collect no more than one ton of material per year.	1	PM = 0.01	Regulation 1.02, Appendix A, Section 3.21
Portable diesel or gasoline storage tanks with a maximum capacity of less than 500 gallons. Portability is defined as being in	4	VOC = 0.08 <sup>4</sup>	Regulation 1.02, Appendix A, Section 3.23

4 The sitewide combustion equipment inventory equals 848 MMBtu/hr.

5 These type of emissions are quantified in routine reporting to the District.

Equipment	Quantity	PTE (tpy)	Regulation Basis
one location less than one year.			
Non VOC Chemical Storage Tanks 4000 gal used oil 11,000 gal Ferric Chloride Misc. empty chemical storage tanks	Varies	--	Regulation 2.16, Section 1.23.1.2
Wastewater Pretreatment System	1	--	Regulation 2.16, Section 1.23.1.2
Cooling Towers	5	PM <sub>10</sub> = 0.75	Regulation 2.16, Section 1.23.1.2
Panel test spray booth (R&D)	1	NA <sup>6</sup>	Regulation 2.16, Section 1.23.1.2

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.
- 3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.
- 6) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.
- 7) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

---

<sup>6</sup> These type of emissions are quantified in routine reporting to the District.