



## **Bureau of Air Quality PSD Construction Permit**

**Scout Motors Inc A Delaware Corporation - Blythewood Plant  
437 Blythewood Road  
Blythewood, South Carolina 29016  
Richland County**

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the construction of this facility and the equipment specified herein in accordance with the plans, specifications, and other information submitted in the construction permit application received on June 01, 2023, as amended. All official correspondence, plans, permit applications, and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction permit may be grounds for permit revocation.

The construction and subsequent operation of this facility is subject to and conditioned upon the terms, limitations, standards, and schedules contained herein or as specified by this permit and its accompanying attachments.

**Permit Number: PSD-50000007 v1.0**  
**Agency Air Number: 1900-0350**

**Issue Date: October 31, 2023**

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**Steve McCaslin, P. E., Director  
Air Permitting Division  
Bureau of Air Quality**

RECORD OF REVISIONS	
Date	Description of Changes

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<b>A. PROJECT DESCRIPTION, EQUIPMENT, AND CONTROL DEVICE(S)</b>
Permission is hereby granted to construct an automobile stamping and assembly facility.

**A.1 EQUIPMENT**

<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Control Device ID</b>	<b>Emission Point ID</b>
ED01	E-coat Dip Tank – Phase I	None	ED01
EO01	E-coat Ovens (electric) – Phase I	RTO 1	RTO 1
ED02	E-coat Dip Tank – Phase II	None	ED02
EO02	E-coat Ovens (electric) – Phase II	RTO 2	RTO 2
PVC01	UB-PVC, Seam Sealer and Sika Sealing – Phase I	RTO 1	RTO 1
SAM01	(SAM) Sound Deadener Adhesive – Phase I	RTO 1	RTO 1
PVC02	UB-PVC, Seam Sealer and Sika Sealing – Phase II	RTO 2	RTO 2
SAM02	(SAM) Sound Deadener Adhesive – Phase II	RTO 2	RTO 2
BC01	Basecoat – Phase I	ADW1, RTO 1, EcoDryX 1	RTO 1, EC0 1
CC01	Clearcoat – Phase I	ADW1, RTO 1, EcoDryX 1	RTO 1, EC0 1
TT01	Tutone – Phase I	ADW1, RTO 1, EcoDryX 1	RTO 1, EC0 1
SR01	Spot Repair – Phase I	SRDC 1	RTO 1
AR01	Assembly Repair – Phase I	ARDC 1	ARDC 1
CW01	Cavity Wax Operations – Phase I	None	RTO 1
BC02	Basecoat – Phase II	ADW2, RTO 2, EcoDryX 2	RTO 2, EC0 2
CC02	Clearcoat – Phase II	ADW2, RTO 2, EcoDryX 2	RTO 2, EC0 2
TT02	Tutone – Phase II	ADW2, RTO 2, EcoDryX 2	RTO 2, EC0 2
SR02	Spot Repair – Phase II	SRDC 2	RTO 2
AR02	Assembly Repair – Phase II	ARDC 2	ARDC 2
CW02	Cavity Wax Operations – Phase II	None	RTO 2
PS	Purge Solvent	RTO 1, RTO 2	RTO 1, RTO 2
CS	Cleaning Solvent	None	Fugitive
Polish	Vehicle Polish	None	Fugitive
PMR1	Paint Mix Room – Phase I	None	RTO 1
PMR2	Paint Mix Room – Phase II	None	RTO 2
PWD1	Paint Shop Work Decks – Phase I	None	RTO 1
PWD2	Paint Shop Work Decks – Phase II	None	RTO 2
BSW01	Body Shop Welding – Phase I	DCBS1	DCBS1
BSW02	Body Shop Welding – Phase II	DCBS2	DCBS2
BSAA01	Body Shop Adhesives Application – Phase I	RTO 1	RTO 1

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<b>A.1 EQUIPMENT</b>			
<b>Equipment ID</b>	<b>Equipment Description</b>	<b>Control Device ID</b>	<b>Emission Point ID</b>
BSAA02	Body Shop Adhesives Application – Phase II	RTO 2	RTO 2
ASA01	Adhesive – Phase I	None	ASA01
ASA02	Adhesive – Phase II	None	ASA02
ASG01	Glazing – Phase I	None	ASG01
ASG02	Glazing – Phase II	None	ASG02
FF1	Washer Fluid Filling – Phase I	None	FF1
FF2	Washer Fluid Filling – Phase II	None	FF2
RTU01-294	294 Rooftop units (natural gas fired, 559.09 MMBtu/hr total)	None	RTU01-294
CT01-12	Twelve (12) Cooling towers	None	CT01-12
1TK01	Tank 1: Glycol/Ethanol – Phase I	None	1TK01
1TK02	Tank 2: Isopropanol – Phase I	None	1TK02
1TK03	Tank 3: Diesel Fuel – Phase I	None	1TK03
1TK04	Tank 4: Diesel Fuel – Phase I	None	1TK04
1TK05	Tank 5: Diesel Fuel – Phase I	None	1TK05
2TK01	Tank 1: Glycol/Ethanol – Phase II	None	2TK01
2TK02	Tank 2: Isopropanol – Phase II	None	2TK02
2TK03	Tank 3: Diesel Fuel – Phase II	None	2TK03
2TK04	Tank 4: Diesel Fuel – Phase II	None	2TK04
2TK05	Tank 5: Diesel Fuel – Phase II	None	2TK05
RD 01/02	Paved Roads	None	Fugitive
1EG01	Emergency generator (Paint Shop) (1,341 HP, natural gas fired)	None	1EG01
1EG02	Emergency generator (Local Data Room) (671 HP, natural gas fired)	None	1EG02
1EG03	Emergency generator (Fire Brigade Building) (134 HP, natural gas fired)	None	1EG03
1FP01	Fire Pump 1 (333 HP, natural gas fired)	None	1FP01
1FP02	Fire Pump 2 (333 HP, natural gas fired)	None	1FP02
1FP03	Fire Pump 3 (333 HP, natural gas fired)	None	1FP03
2EG01	Emergency generator (Paint Shop) (1,341 HP, natural gas fired)	None	2EG01
2EG02	Emergency generator (Local Data Room) (671 HP, natural gas fired)	None	2EG02
2EG03	Emergency generator (Fire Brigade Building) (134 HP, natural gas fired)	None	2EG03
2FP01	Fire Pump 1 (333 HP, natural gas fired)	None	2FP01
2FP02	Fire Pump 2 (333 HP, natural gas fired)	None	2FP02
2FP03	Fire Pump 3 (333 HP, natural gas fired)	None	2FP03

<b>A.2 CONTROL DEVICES</b>			
<b>Control Device ID</b>	<b>Control Device Description</b>	<b>Pollutant(s) Controlled</b>	<b>Emission Point ID</b>
ADW1	Adsorption Wheel #1	VOCs	RTO 1

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<b>A.2 CONTROL DEVICES</b>			
<b>Control Device ID</b>	<b>Control Device Description</b>	<b>Pollutant(s) Controlled</b>	<b>Emission Point ID</b>
RTO 1	Regenerative Thermal Oxidizer #1 (electric)	VOCs	RTO 1
ADW2	Adsorption Wheel #2	VOCs	RTO 2
RTO 2	Regenerative Thermal Oxidizer #2 (electric)	VOCs	RTO 2
DCBS1	Body Shop Dust Collector	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	BSDC 1
DCBS2	Body Shop Dust Collector	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	BSDC 2
EcoDryX 1	Coating Dust Filtration	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	ECO 1
EcoDryX 2	Coating Dust Filtration	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	ECO 2
SRDC 1	Spot Repair Dust Collector	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	RTO 1
ARDC 1	Assembly Repair Dust Collector	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	ARDC 1
SRDC 2	Spot Repair Dust Collector	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	RTO 2
ARDC 2	Assembly Repair Dust Collector	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	ARDC 2

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
B.1	<p><b>Equipment ID:</b> Facility-Wide  <b>Control Device ID:</b> Facility-wide</p> <p>(S.C. Regulation 61-62.1, Section II(E)) This facility is a potential major source for CO emissions. The facility has requested federally enforceable emissions limitations to limit its potential to emit to less than 100.0 tons per year for CO emissions to avoid PSD.</p>
B.2	<p><b>Equipment ID:</b> Facility-Wide  <b>Control Device ID:</b> Facility-wide</p> <p>(S.C. Regulation 61-62.1(II)(J)(2)) The owner or operator shall maintain fuel use records and any other records necessary to determine facility wide CO emissions. CO emissions shall be calculated on a monthly basis, and a twelve month rolling sum shall be calculated for total CO emissions. Facility-wide emission totals must include emissions from insignificant activities. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve month rolling sum shall be less than 100.0 tons. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.</p> <p>An algorithm, including example calculations and emission factors, explaining the method used to determine emission rates shall only be included in the initial report. Subsequent submittals of the algorithm are required within 30 days of the change if the algorithm or basis for emissions is modified or the Department requests additional information.</p>
B.3	<p><b>Equipment ID:</b> Facility-Wide  <b>Control Device ID:</b> Facility-wide</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>All emissions points, duct work and other locations that are required to be tested, shall be designed and constructed in a manner to facilitate testing in accordance with applicable EPA approved source testing methods; including, but not be limited to, methods specifying test port location and sizing criteria.</p> <p>For any source test required under an applicable standard or permit condition, the owner, operator, or representative shall comply with S.C. Regulation 61-62.1, Section IV - Source Tests.</p> <p>Unless approved otherwise by the Department, the owner, operator, or representative shall ensure that source tests are conducted while the source is operating at the maximum expected production rate or other production rate or operating parameter which would result in the highest emissions for the pollutants being tested. Some sources may have to spike fuels or raw materials to avoid being subjected to a more restrictive feed or process rate. Any source test performed at a production rate less than the rated capacity may result in permit limits on emission rates, including limits on production if necessary.</p> <p>When conducting source tests subject to this section, the owner, operator, or representative shall provide the following:</p> <ul style="list-style-type: none"> <li>• Department access to the facility to observe source tests;</li> <li>• Sampling ports adequate for test methods;</li> <li>• Safe sampling site(s);</li> <li>• Safe access to sampling site(s);</li> <li>• Utilities for sampling and testing equipment; and</li> <li>• Equipment and supplies necessary for safe testing of a source.</li> </ul> <p>The owner or operator shall comply with any limits that result from conducting a source test at less than rated capacity. A copy of the most recent Department issued source test summary letter, whether it imposes a limit or not, shall be maintained with the operating permit, for each source that is required to conduct a source test.</p> <p>Site-specific test plans and amendments, notifications, and source test reports shall be submitted to the Department.</p>
B.4	<p><b>Equipment ID:</b> EO01, EO02, PVC01, SAM01, PVC02, SAM02, BC01, CC01, TT01, BC02, CC02, TT02, PS01, PS02, BSAA01, BSAA02, BSW01, BSW02</p> <p><b>Control Device ID:</b> RTO 1, RTO 2, ADW 1, ADW 2, DCBS1, DCBS2, EcoDryX 1, EcoDryX 2</p> <p>The owner or operator shall inspect, calibrate, adjust, and maintain continuous monitoring systems, monitoring devices, and gauges in accordance with manufacturer’s specifications or good engineering practices. The owner or operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other</p>

B. LIMITATIONS, MONITORING, AND REPORTING									
Condition Number	Conditions								
	<p>information required in a permanent form suitable for inspection by Department personnel.</p> <p>(S.C. Regulation 61-62.1, Section II(J)(1)(d)) Sources required to have continuous emission monitors shall submit reports as specified in applicable parts of the permit, law, regulations, or standards.</p>								
B.5	<p><b>Equipment ID:</b> EO01, EO02, PVC01, SAM01, PVC02, SAM02, BC01, CC01, TT01, BC02, CC02, TT02, PS01, PS02, BSAA01, BSAA02, BSW01, BSW02</p> <p><b>Control Device ID:</b> RTO 1, RTO 2, ADW 1, ADW 2, DCBS1, DCBS2, EcoDryX 1, EcoDryX 2</p> <p>All gauges shall be readily accessible and easily read by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Monitoring parameter readings (e.g., pressure drop readings, flow rates, etc.) and inspection checks shall be maintained in logs (written or electronic), along with any corrective action taken when deviations occur. Each occurrence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site. Exceedance of operational range shall not be considered a violation of an emission limit of this permit, unless the exceedance is also accompanied by other information demonstrating that a violation of an emission limit has taken place.</p> <p>Reports of these occurrences shall be submitted semiannually. If there were no occurrences during the reporting period, then documentation shall be submitted to indicate such. Any alternative method for monitoring control device performance must be preapproved by the Department and shall be incorporated into the permit as set forth in S.C. Regulation 61-62.70.7.</p>								
B.6	<p><b>Equipment ID:</b> EO01, EO02, PVC01, SAM01, PVC02, SAM02, BC01, CC01, TT01, BC02, CC02, TT02, PS01, PS02, BSAA01, BSAA02, BSW01, BSW02</p> <p><b>Control Device ID:</b> RTO 1, RTO 2, ADW 1, ADW 2, DCBS1, DCBS2, EcoDryX 1, EcoDryX 2</p> <p>(S.C. Regulation 61-62.1(II)(J)(2)) Operational ranges for the monitored parameters shall be established to ensure proper operation of the pollution control equipment. These operational ranges for the monitored parameters shall be derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. Prior to the first source test, the facility shall use manufacturer's recommendations for operational ranges. The manufacturer's recommendations must be maintained on site. These ranges and supporting documentation (certification from manufacturer, stack test results, 30 days of normal readings, opacity readings, etc.) shall be submitted to the Department within 180 days of startup. Operating ranges may be updated following submittal to the Department.</p>								
B.7	<p><b>Equipment ID:</b> RTU01-294</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM10, PM2.5, NOX, VOC, and CO2e, the rooftop units shall comply with the following limits:</p> <table border="1" data-bbox="544 1829 1248 1902"> <thead> <tr> <th>Pollutant</th> <th>Limit (3 hr average)</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Pollutant	Limit (3 hr average)	Units			
Pollutant	Limit (3 hr average)	Units							

**B. LIMITATIONS, MONITORING, AND REPORTING**

Condition Number	Conditions																				
		<table border="1"> <tr> <td>PM (total)</td> <td>0.0005</td> <td>lb/MMBtu</td> </tr> <tr> <td>PM<sub>10</sub></td> <td>0.0005</td> <td>lb/MMBtu</td> </tr> <tr> <td>PM<sub>2.5</sub></td> <td>0.0004</td> <td>lb/MMBtu</td> </tr> <tr> <td>VOC</td> <td>0.0054</td> <td>lb/MMBtu</td> </tr> <tr> <td>NO<sub>x</sub></td> <td>0.043</td> <td>lb/MMBtu</td> </tr> <tr> <td>CO<sub>2e</sub></td> <td>118.0</td> <td>lb/MMBtu</td> </tr> </table>	PM (total)	0.0005	lb/MMBtu	PM <sub>10</sub>	0.0005	lb/MMBtu	PM <sub>2.5</sub>	0.0004	lb/MMBtu	VOC	0.0054	lb/MMBtu	NO <sub>x</sub>	0.043	lb/MMBtu	CO <sub>2e</sub>	118.0	lb/MMBtu	<p>These sources are permitted to burn only natural gas as fuel. The use of any other substances as fuel is prohibited without prior written approval from the Department.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and CO<sub>2e</sub>, these sources are subject to good combustion practices.</p> <p>Good Combustion Practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Operating the rooftop units at appropriate temperatures</li> <li>• Ensuring the oxygen ranges are appropriate for complete combustion</li> </ul> <p>A good combustion practices plan must be created including at least the elements mentioned above. The plan must be submitted to the director of the air permitting section within 180 days of startup.</p> <p>Operation and maintenance checks shall be conducted at least annually. Reports documenting the status of those checks shall be submitted semiannually.</p>
PM (total)	0.0005	lb/MMBtu																			
PM <sub>10</sub>	0.0005	lb/MMBtu																			
PM <sub>2.5</sub>	0.0004	lb/MMBtu																			
VOC	0.0054	lb/MMBtu																			
NO <sub>x</sub>	0.043	lb/MMBtu																			
CO <sub>2e</sub>	118.0	lb/MMBtu																			
B.8	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02  <b>Control Device ID:</b> ADW1, RTO 1, ADW2, RTO 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from E-Coat operations shall be limited to 0.23 lbs of VOC per gallon applied coating solids (monthly averaging time). The owner or operator shall maintain records of all volatile organic compounds (VOC). Record keeping shall be performed in a manner consistent with 40 CFR 63 Subpart IIII. Reports of the calculated values shall be submitted semiannually.</p>																				
B.9	<p><b>Equipment ID:</b> PVC01, SAM01, PVC02, SAM02  <b>Control Device ID:</b> RTO 1, RTO 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the Sealer, Adhesive and Underbody PVC operations shall be limited to 0.25 lbs/gal (monthly averaging time).</p>																				
B.10	<p><b>Equipment ID:</b> BC01, CC01, TT01, BC02, CC02, TT02  <b>Control Device ID:</b> ADW1, RTO 1, EcoDry 1, ADW2, RTO 2, EcoDry 2</p>																				



<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the topcoat and tutone operations shall be limited to 3.53 lbs VOC/GACS (monthly averaging time). The owner or operator shall maintain records of all volatile organic compounds (VOC). Record keeping shall be performed in a manner consistent with 40 CFR 63 Subpart IIII. Reports of the calculated values shall be submitted semiannually.</p>
B.11	<p><b>Equipment ID:</b> BC01, CC01, TT01, BC02, CC02, TT02  <b>Control Device ID:</b> ADW1, RTO 1, EcoDry 1, ADW2, RTO 2, EcoDry 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM (filterable) emissions from topcoat and tutone operations shall be limited to 1 mg/m<sup>3</sup> (dry standard cubic foot, 3-hour block average).</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>10</sub> emissions from topcoat and tutone operations shall be limited to 1 mg/m<sup>3</sup> (dry standard cubic foot, 3-hour block average).</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>2.5</sub> emissions from topcoat and tutone operations shall be limited to 1 mg/m<sup>3</sup> (dry standard cubic foot, 3-hour block average).</p>
B.12	<p><b>Equipment ID:</b> SR01, AR01, SR02, AR02  <b>Control Device ID:</b> SRDC 1, ARDC 1, SRDC 2, ARDC 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>Filterable</sub> emissions from spot and assembly repair shall be limited to 0.075 lb/hr.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>10</sub> emissions from spot and assembly repair shall be limited to 0.075 lb/hr.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>2.5</sub> emissions from spot and assembly repair shall be limited to 0.075 lb/hr.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) Dry filter(s) shall be operational and in place at all times when equipment or processes controlled by filter(s) are operating, except during periods of malfunction or mechanical failure. A schedule shall be implemented for the weekly inspection and regular cleaning or replacement of the dry filter(s). Records of these events shall be maintained in logs (written or electronic) and submitted semiannually.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on BACT analysis, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Minimize overspray</li> </ul>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<ul style="list-style-type: none"> <li>Minimize paint use</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>
B.13	<p><b>Equipment ID:</b> BSW01, BSW02  <b>Control Device ID:</b> DCBS1, DCBS2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>Filterable</sub> emissions from body shop welding operations shall be limited to 0.04 lb/hr.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>10</sub> emissions from body shop welding operations shall be limited to 0.04 lb/hr.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) The PM<sub>2.5</sub> emissions from body shop welding operations shall be limited to 0.04 lb/hr.</p>
B.14	<p><b>Equipment ID:</b> SR01, AR01, SR02, AR02  <b>Control Device ID:</b> SRDC 1, SRDC 2, ARDC1, ARDC2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the spot and assembly repair operations shall be limited to 4.8 lbs VOC/gal (monthly averaging). The owner or operator shall maintain records of all volatile organic compounds (VOC). These records shall include the total amount of each material used, the VOC content in percent by weight of each material, and any other records necessary to determine VOC. VOC emissions shall be calculated monthly. Emissions from malfunctions are required to be quantified and included in the calculations. Reports of the calculated values shall be submitted semiannually.</p> <p>An algorithm, including example calculations and emission factors, explaining the method used to determine emission rates shall only be included in the initial report. Subsequent submittals of the algorithm are required within 30 days of the change if the algorithm or basis for emissions is modified or the Department requests additional information.</p>
B.15	<p><b>Equipment ID:</b> CW01, CW02</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the cavity wax operations shall be limited to 1.0 lbs VOC/gal. The owner or operator shall maintain records of all volatile organic compounds (VOC). The facility shall be required to submit the VOC content of any cavity wax within 30 days of startup. Reports of a new cavity wax or a statement that no new waxes have been used shall be submitted semiannually.</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
B.16	<p><b>Equipment ID:</b> PS <b>Control Device ID:</b> RTO 1, RTO 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the purge solvent operations shall be limited to 385.82 tpy.</p> <p>The owner or operator shall maintain records of all volatile organic compounds (VOC). These records shall include the total amount of each material used, the VOC content in percent by weight of each material, and any other records necessary to determine VOC emissions. VOC emissions shall be calculated monthly, and a twelve-month rolling sum shall be calculated monthly. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve-month rolling sum shall be less than 385.82 tons for VOC. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.</p> <p>An algorithm, including example calculations and emission factors, explaining the method used to determine emission rates shall only be included in the initial report. Subsequent submittals of the algorithm are required within 30 days of the change if the algorithm or basis for emissions is modified or the Department requests additional information.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Cover mixing and storage vessels for VOC-containing cleaning materials and waste cleaning materials, except when adding, removing, or mixing contents.</li> <li>• Use closed containers or pipes to store and convey VOC-containing cleaning and waste cleaning materials.</li> <li>• Minimize spills of VOC-containing cleaning and waste cleaning materials.</li> <li>• Minimize VOC emissions during cleaning operations.</li> <li>• Follow MACT work practice standards in 40 CFR 63.3094, which are consistent with other work practices with the automobile manufacturing industry.</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>
B.17	<p><b>Equipment ID:</b> CS, Polish</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the cleaning solvent operations shall be limited to 58.8 tpy.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the vehicle polish operations shall be limited to 3.37 tpy.</p> <p>The owner or operator shall maintain records of all volatile organic compounds (VOC). These records shall include the total amount of each material used, the VOC content in percent by weight of each material, and any other records necessary to determine VOC emissions. VOC emissions shall be calculated monthly, and a twelve-month rolling sum shall be calculated monthly. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve-month rolling sum shall be less than 58.8 tons for cleaning solvent operations and 3.37 tons for vehicle polish operations. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.</p> <p>An algorithm, including example calculations and emission factors, explaining the method used to determine emission rates shall only be included in the initial report. Subsequent submittals of the algorithm are required within 30 days of the change if the algorithm or basis for emissions is modified or the Department requests additional information.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Cover mixing and storage vessels for VOC-containing cleaning materials and waste cleaning materials, except when adding, removing, or mixing contents.</li> <li>• Use closed containers or pipes to store and convey VOC-containing cleaning and waste cleaning materials.</li> <li>• Minimize spills of VOC-containing cleaning and waste cleaning materials.</li> <li>• Minimize VOC emissions during cleaning operations.</li> <li>• Follow MACT work practice standards in 40 CFR 63.3094, which are consistent with other work practices with the automobile manufacturing industry.</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
B.18	<p><b>Equipment ID:</b> BSAA01, BSAA02  <b>Control Device ID:</b> RTO 1, RTO 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from this source shall be limited to 0.0005 lb VOC/lb coating (monthly averaging time).</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Use of an appropriate amount of material</li> <li>• Minimize waste</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>
B.19	<p><b>Equipment ID:</b> ASA01, ASA02, ASG01, ASG02</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the VOC emissions from the window and windshield glazing and mounting operations shall be limited to 0.4 lbs VOC/gal (monthly averaging time). The facility shall be required to submit the VOC content of any glaze used within 30 days of startup. Reports of a new glaze or a statement that no new glazes have been used shall be submitted semiannually.</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Use of an appropriate amount of material</li> <li>• Minimize waste</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>

**B. LIMITATIONS, MONITORING, AND REPORTING**

Condition Number	Conditions
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**Equipment ID:** 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03

(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, and CO<sub>2e</sub>, the emergency engines shall comply with the following limits:

Pollutant	Emergency Generator Engines (kW > 560)	Emergency Generator Engines (130 ≤ kW ≤ 560)	Emergency Generator Engines (75 ≤ kW < 130)	Fire Pump Engines (300 ≤ HP < 600)	Units
PM <sub>Total</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> (each)	0.15	0.15	0.22	0.15	g/hp*hr
VOC	0.32	0.32	1.14	1.14	g/hp*hr
NO <sub>x</sub>	4.77	2.98	2.98	3.00	g/hp*hr
CO <sub>2e</sub>	164.0				lb/MMBtu

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The owner or operator shall maintain EPA certification and any other records necessary to determine emissions. These certifications shall be submitted to the director of the air permitting section within 180 days of startup. Subsequent submittals shall be submitted within 30 days of receiving a new emergency engine. Certification shall also be kept on site. The facility shall conduct tune ups in accordance with the manufacturer’s recommendations.

The owner or operator shall perform a visual inspection on a semiannual basis. The inspection shall occur during normal source operation. No periodic monitoring for opacity will be required for sources during periods that only natural gas or propane are being combusted. Logs shall be kept to record all visual inspections, noting color, duration, density (heavy or light), cause, and corrective action taken for any abnormal emissions. If a source did not operate during the required visual inspection time frame, the log shall indicate such. The owner or operator shall submit semiannual reports. The report shall include records of abnormal emissions, if any, and corrective actions taken. If the unit did not operate during the semiannual period, the report shall state so.

Visual inspection means a qualitative observation of opacity during daylight hours. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water.

These sources are permitted to burn only diesel fuel as fuel. The use of any other substances as fuel is prohibited without prior written approval from the Department.

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
B.21	<p><b>Equipment ID:</b> CT01-12</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM<sub>10</sub>, and PM<sub>2.5</sub>, the cooling towers shall be limited to a 0.001% drift rate. Documentation of the drift rate shall be maintained on site.</p> <p>Operation and maintenance checks shall be made on at least a semiannual basis for the cooling towers’ drift eliminators for proper operation. Documentation of the semiannual inspections, maintenance activities, and other work performed shall be submitted semiannually.</p>
B.22	<p><b>Equipment ID:</b> PWD1, PWD2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM<sub>10</sub>, and PM<sub>2.5</sub>, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Conducting all operations indoors</li> <li>• Minimize rework</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>
B.23	<p><b>Equipment ID:</b> RD</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM<sub>10</sub>, and PM<sub>2.5</sub>, the facility shall pave and maintain the roads to reduce the fugitive dust emissions. The facility will also reduce vehicle speeds to reduce the fugitive dust emissions.</p>
B.24	<p><b>Equipment ID:</b> 1TK01, 1TK02, 1TK03, 1TK04, 1TK05, 2TK01, 2TK02, 2TK03, 2TK04, 2TK05</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Monthly inspections for leaks and overflow</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
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	training shall be maintained on site.
B.25	<p><b>Equipment ID:</b> PMR1, PMR2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Storing and transporting all VOC-containing coatings, thinners, and cleaning materials in closed containers</li> <li>• Minimize spills of VOC-containing cleaning and waste cleaning materials.</li> </ul> <p>A work practice plan must be created that includes at least the items outlined above. The plan must include training for new employees prior to operations. The plan must be submitted to the director of the air permitting section within 180 days of startup. A copy of the plan and records of employee training shall be maintained on site.</p>
B.26	<p><b>Equipment ID:</b> FF1, FF2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, these sources are subject to good work practices.</p> <p>Good work practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Storing and transporting all VOC-containing coatings, thinners, and cleaning materials in closed containers</li> <li>• Minimize spills of VOC-containing materials</li> </ul>
B.27	<p><b>Equipment ID:</b> BSW01, BSW02</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for CO<sub>2</sub>e, the facility shall check the CO<sub>2</sub> shield gas for audible leaks monthly. Records shall be maintained on site.</p>
B.28	<p><b>Equipment ID:</b> EO01, EO02, PVC01, SAM01, PVC02, SAM02, BC01, CC01, TT01, BC02, CC02, TT02, PS, BSAA01, BSAA02</p> <p><b>Control Device ID:</b> RTO 1, RTO 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for VOC, the facility shall use an RTO with a 95% destruction efficiency on the listed sources to control VOC emissions. An initial source test to verify the capture and destruction efficiency of the adsorption wheel and the RTOs shall be conducted within</p>



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	180 days after startup and every 4 years thereafter. The source test will be used to verify that the capture efficiency is at least 90% and the destruction efficiency of the RTOs is at least 95%.
B.29	<p><b>Equipment ID:</b> SR01, AR01, SR02, AR02, BSW01, BSW02  <b>Control Device ID:</b> SRDC 1, SRDC 2, ARDC1, ARDC2, DCBS1, DCBS2</p> <p>(S.C. Regulation 61-62.5, Standard No. 7) In accordance with Standard No. 7 – Prevention of Significant Deterioration and based on the BACT analysis for PM, PM<sub>10</sub>, and PM<sub>2.5</sub>, the facility shall use a filter with a 98.5% removal efficiency on the listed sources to control PM<sub>Filterable</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.</p>
B.30	<p><b>Equipment ID:</b> All except: RD, 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03, RTU1-294  <b>Control Device ID:</b> All</p> <p>(S.C. Regulation 61-62.5, Standard No. 4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20%, each.</p> <p>The owner or operator shall perform a visual inspection on a semiannual basis of sources subject to opacity limits. The inspection shall occur during normal source operation. No periodic monitoring for opacity will be required for sources during periods that only natural gas or propane are being combusted. Logs shall be kept to record all visual inspections, noting color, duration, density (heavy or light), cause, and corrective action taken for any abnormal emissions. If a source did not operate during the required visual inspection time frame, the log shall indicate such. The owner or operator shall submit semiannual reports. The report shall include records of abnormal emissions, if any, and corrective actions taken. If the unit did not operate during the semiannual period, the report shall state so.</p> <p>Visual inspection means a qualitative observation of opacity during daylight hours. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water.</p>
B.31	<p><b>Equipment ID:</b> All  <b>Control Device ID:</b> All</p> <p>(S.C. Regulation 61-62.5, Standard No. 4, Section VIII) Particulate matter emissions shall be limited to the rate specified by use of the following equations:</p> <p style="text-align: center;">For process weight rates less than or equal to 30 tons per hour  <math display="block">E = (F) 4.10P^{0.67}</math></p> <p style="text-align: center;">For process weight rates greater than 30 tons per hour  <math display="block">E = (F) (55.0P^{0.11} - 40)</math></p> <p style="text-align: center;">Where E = the allowable emission rate in pounds per hour  P = process weight rate in tons per hour</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>F = effect factor from Table B in S.C. Regulation 61-62.5, Standard No. 4</p> <p>For the purposes of compliance with this condition, the process boundaries are defined as follows:</p> <ul style="list-style-type: none"> <li>Stamping, Body Shop, Paint Shop and Assembly Operations - Max Process Weight Rate 74.41 ton/hr</li> </ul>
B.32	<p><b>Control Device ID:</b> RTO 1, RTO 2</p> <p>(S.C. Regulation 61-62.5, Standard No. 3, Section III(I)(1)) Emissions from these sources shall not exhibit an opacity greater than 20%, each. This is a State Only requirement.</p> <p>(S.C. Regulation 61-62.5, Standard No. 3, Section III(I)(2)) Particulate matter emissions from these sources shall not exceed 0.5 lb/10<sup>6</sup> Btu total heat input. The total heat input value from waste and virgin fuel used for production shall not exceed the Btus used to affect the combustion of the waste and shall not include any Btu input from auxiliary burners located outside of the primary combustion chamber such as those found in secondary combustion chambers, tertiary combustion chambers or afterburners unless those auxiliary burners are fired with waste. In the case where waste is fired in the auxiliary burners located outside of the primary combustion chamber, only the Btu value of the fuel for the auxiliary burner which is from waste shall be added to the total heat input value. This is a State Only requirement.</p>
B.33	<p><b>Control Device ID:</b> RTO 1, RTO 2</p> <p>(S.C. Regulation 61-62.1(II)(J)(2)) The owner or operator shall install, operate and maintain combustion zone and/or afterburner temperature indicators on each incinerator. Temperature readings shall be recorded at least every fifteen (15) minutes during source operation for each incinerator. Facilities with automated data collection may collect monitoring data on a more frequent basis and calculate the daily average. Readings collected when the source is shutdown or not operating may not be used in the calculation. The owner or operator must get approval from the Department for an increased frequency/averaging plan prior to using averaging for parametric monitoring. The owner or operator shall continue to record daily, the calculated monitoring averages using the approved increased frequency/averaging plan unless prior approval is obtained from the Department for changing the plan. Maintenance checks for proper temperature indicator operation shall be made on at least a weekly basis. The checks and any corrective actions shall be documented and kept on-site. Each incinerator shall be in place and operational whenever processes controlled by it are running, except during periods of flame incinerator malfunction or mechanical failure.</p>
B.34	<p><b>Control Device ID:</b> DCBS1, DCBS2, EcoDryX 1, EcoDryX 2</p> <p>(S.C. Regulation 61-62.1(II)(J)(2)) The owner or operator shall install, operate and maintain pressure drop gauge(s) on each dust collector. Pressure drop readings for each baghouse shall be recorded daily during source operation. Facilities with automated data collection may collect monitoring data on a more frequent basis and calculate the daily average. Readings collected when the source is shutdown or not operating may not be used in the calculation. The owner or operator must get approval from the Department for an increased frequency/averaging plan prior to using averaging for</p>

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	<p>parametric monitoring. The owner or operator shall continue to record daily, the calculated monitoring averages using the approved increased frequency/averaging plan unless prior approval is obtained from the Department for changing the plan.</p> <p>Operation and maintenance checks shall be made on at least a weekly basis for dust collector cleaning systems, dust collection hoppers and conveying systems for proper operation. The checks and any corrective actions shall be documented and kept on-site. Each dust collector shall be in place and operational whenever processes controlled by it are running, except during periods of dust collector malfunction or mechanical failure.</p>
B.35	<p><b>Control Device ID:</b> ADW 1, ADW 2</p> <p>(S.C. Regulation 61-62.1(II)(J)(2)) The owner or operator shall install, operate, and maintain desorption gas inlet temperature sensor(s) on the adsorption wheel. Temperature readings for the adsorption wheel shall be recorded daily during source operation. The adsorption wheel shall be in place and operational whenever processes controlled by it are running, except during periods of adsorption wheel malfunction or mechanical failure.</p> <p>Facilities with automated data collection may collect monitoring data on a more frequent basis and calculate the daily average. Readings collected when the source is shutdown or not operating may not be used in the calculation. The owner or operator must get approval from the Department for an increased frequency/averaging plan prior to using averaging for parametric monitoring. The owner or operator shall continue to record daily, the calculated monitoring averages using the approved increased frequency/averaging plan unless prior approval is obtained from the Department for changing the plan.</p> <p>Operation and maintenance checks shall be made on at least a weekly basis. The checks and any corrective actions shall be documented and kept on-site. The adsorption wheel shall be in place and operational whenever processes controlled by it are running, except during periods of malfunction or mechanical failure.</p>
B.36	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02, BC01, CC01, TT01, BC02, CC02, TT02, SR01, AR01, SR02, AR02, BSAA01, BSAA02, PMR1, PMR2, PS, CS, Polish</p> <p><b>Control Device ID:</b> RTO 1, ADW 1, RTO 2, ADW 2</p> <p>These sources are subject to New Source Performance Standards (NSPS), 40 CFR 60 and S.C. Regulation 61-62.60 Subpart A, General Provisions and Subpart MMA, Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After May 18, 2022, as applicable. These sources shall comply with all applicable requirements of Subparts A and MMA.</p> <p><b>§ 60.392a Standards for volatile organic compounds.</b></p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>You must comply with the requirements in paragraphs (a) through (h) of this section.</p> <p>(a) <i>Emission limitations.</i> On and after the date on which the initial performance test required by § 60.8 is completed, you must not discharge or cause the discharge into the atmosphere from any affected facility VOC emissions in excess of the limits in paragraph (a)(1) through (4) of this section. The emission limitations listed in this paragraph (a) of this section shall apply at all times, including periods of startup, shutdown and malfunction. As provided in § 60.11(f), this provision supersedes the exemptions for periods of startup, shutdown and malfunction in the part 60 general provisions in subpart A to this part.</p> <p>(1) For each EDP prime coat operation:</p> <p>(i) 0.027 kilogram of VOC per liter of applied coating solids when <math>R_T</math> is 0.16 or greater.</p> <p>(ii) <math>0.027 \times 350^{(0.160 - R_T)}</math> kg of VOC per liter of applied coating solids when <math>R_T</math> is greater than or equal to 0.040 and less than 0.160.</p> <p>(iii) When <math>R_T</math> is less than 0.040, there is no emission limit.</p> <p>(2) – (3) ...</p> <p>(4) 0.42 kilograms of VOC per liter of applied coating solids (3.53 pounds per gallon of applied coating solids) from each topcoat operation.</p> <p>(b) <i>Work practices for storage, mixing, and conveying.</i> You must develop and implement a work practice plan to minimize VOC 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 § 60.392a(a). The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.</p> <p>(1) All VOC-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.</p> <p>(2) The risk of spills of VOC-containing coatings, thinners, cleaning materials, and waste materials must be minimized.</p> <p>(3) VOC-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.</p> <p>(4) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>VOC-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.</p> <p>(5) Emissions of VOC must be minimized during cleaning of storage, mixing, and conveying equipment.</p> <p>(c) <i>Work practices for cleaning and purging.</i> You must develop and implement a work practice plan to minimize VOC emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established under paragraph (a) of this section.</p> <p>(1) The plan shall, at a minimum, address each of the operations listed in paragraphs (c)(1)(i) through (viii) of this section in which you use VOC-containing materials or in which there is a potential for emission of VOC.</p> <p>(i) The plan must address vehicle body wipe emissions through one or more of the techniques listed in paragraphs (c)(1)(i)(A) through (D) of this section, or an approved alternative.</p> <p>(A) Use of solvent-moistened wipes.</p> <p>(B) Keeping solvent containers closed when not in use.</p> <p>(C) Keeping wipe disposal/recovery containers closed when not in use.</p> <p>(D) Use of tack-wipes.</p> <p>(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 this section, or an approved alternative.</p> <p>(A) Air/solvent push-out.</p> <p>(B) Capture and reclaim or recovery of purge materials (excluding applicator nozzles/tips).</p> <p>(C) Block painting to the maximum extent feasible.</p> <p>(D) Use of low-VOC or no-VOC solvents for purge.</p> <p>(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 this section, or an approved alternative.</p> <p>(A) Keeping solvent tanks closed.</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>(B) Recovering and recycling solvents.</p> <p>(C) Keeping recovered/recycled solvent tanks closed.</p> <p>(D) Use of low-VOC or no-VOC solvents.</p> <p>(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 this section, or an approved alternative.</p> <p>(A) Controlled burn-off.</p> <p>(B) Rinsing with high-pressure water (in place).</p> <p>(C) Rinsing with high-pressure water (off line).</p> <p>(D) Use of spray-on masking or other type of liquid masking.</p> <p>(E) Use of low-VOC or no-VOC content cleaners.</p> <p>(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 this section, or an approved alternative.</p> <p>(A) Use of masking materials (contact paper, plastic sheet, or other similar type of material).</p> <p>(B) Use of spray-on masking.</p> <p>(C) Use of rags and manual wipes instead of spray application when cleaning walls.</p> <p>(D) Use of low-VOC or no-VOC content cleaners.</p> <p>(E) Controlled access to cleaning solvents.</p> <p>(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 this section, or an approved alternative.</p> <p>(A) Use of covers on equipment (disposable or reusable).</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>(B) Use of parts cleaners (off-line submersion cleaning).</p> <p>(C) Use of spray-on masking or other protective coatings.</p> <p>(D) Use of low-VOC or no-VOC content cleaners.</p> <p>(E) Controlled access to cleaning solvents.</p> <p>(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 this section, or an approved alternative.</p> <p>(A) Use of removable floor coverings (paper, foil, plastic, or similar type of material).</p> <p>(B) Use of manual and/or mechanical scrubbers, rags, or wipes instead of spray application.</p> <p>(C) Use of shoe cleaners to eliminate coating track-out from spray booths.</p> <p>(D) Use of booties or shoe wraps.</p> <p>(E) Use of low-VOC or no-VOC content cleaners.</p> <p>(F) Controlled access to cleaning solvents.</p> <p>(viii) The plan must address emissions from housekeeping measures not addressed in paragraphs (c)(1)(i) through (vii) of this section through one or more of the techniques listed in paragraphs (c)(1)(viii)(A) through (C) of this section, or an approved alternative.</p> <p>(A) Keeping solvent-laden articles (cloths, paper, plastic, rags, wipes, and similar items) in covered containers when not in use.</p> <p>(B) Storing new and used solvents in closed containers.</p> <p>(C) Transferring of solvents in a manner to minimize the risk of spills.</p> <p>(2) Notwithstanding the requirements of paragraphs (c)(1)(i) through (viii) of this section, if the type of coatings used in any facility with surface coating operations subject to the requirements of this section are of such a nature that the need for one or more of the practices specified under paragraphs (c)(1)(i) through (viii) of this section is eliminated, then the plan may include approved alternative or equivalent measures that are applicable or necessary during cleaning of storage,</p>

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	<p>conveying, and application equipment.</p> <p>(d) <i>Work practice plan revisions.</i> The work practice plans developed in accordance with paragraphs (b) and (c) of this section are not required to be incorporated in your title V permit. Any revisions to the work practice plans developed in accordance with paragraphs (b) and (c) of this section do not constitute revisions to your title V permit.</p> <p>(e) <i>Work practice plan retention time.</i> Copies of the current work practice plans developed in accordance with paragraphs (b) and (c) of this section, as well as plans developed within the preceding 5 years must be available on-site for inspection and copying by the permitting authority.</p> <p>(f) <i>Operating limits.</i> You are not required to meet any operating limits for any coating operation(s) without add-on controls, nor are you 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 § 60.392a(a).</p> <p>(g) <i>Operating limits for operations with add-on controls.</i> Except as provided in paragraph (h) of this section, for any controlled coating operation(s), you must meet the operating limits specified in table 1 to this subpart. These operating limits apply to the emission capture and add-on control systems for affected sources in § 60.390a(a)(1), and you must establish the operating limits during performance tests according to the requirements in § 60.394a. You must meet the operating limits at all times after you establish them.</p> <p>(h) <i>Alternative operating limits.</i> If you use an add-on control device other than those listed in table 1 to this subpart or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 60.13(i).</p>
B.37	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02, BC01, CC01, TT01, BC02, CC02, TT02, SR01, AR01, SR02, AR02, BSAA01, BSAA02, PMR1, PMR2, PS, CS, Polish</p> <p><b>Control Device ID:</b> RTO 1, ADW 1, RTO 2, ADW 2</p> <p><b>§ 60.393a Performance test and compliance provisions.</b></p> <p>(a) <i>Representative conditions.</i> You must conduct performance tests under representative conditions for the affected coating operation according to § 60.8(c) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 60.8(b)(4).</p> <p>(1) Operations during periods of startup, shutdown, or nonoperation do not constitute conditions representative of normal operation for purposes of conducting a performance test. You may not conduct performance tests during periods of malfunction. Emissions in excess of the applicable emission limit during periods of startup, shutdown, and malfunction will be considered a violation</p>



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	<p>of the applicable emission limit.</p> <p>(2) You must record the process information that is necessary to document operating conditions during the performance test and explain why the conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.</p> <p>(3) Section 60.8(d) and (f) do not apply to the performance test procedures required by this section.</p> <p>(b) <i>Initial and continuous compliance requirements.</i> You must conduct an initial performance test in accordance with § 60.8(a) and thereafter for each calendar month for each affected facility according to the procedures in this section. You must also conduct periodic performance tests of add-on controls, except for solvent recovery systems for which liquid-liquid material balances are conducted according to paragraph (l) of this section, to reestablish the operating limits required by § 60.392a within 5 years following the previous performance test. You must meet all the requirements of this section to demonstrate initial and continuous compliance.</p> <p>(1) To demonstrate initial compliance, the VOC emissions from affected source must meet the applicable emission limitation in § 60.392a and the work practice standards in § 60.392a and the applicable operating limits in § 60.392a established during the initial performance test using the procedures in § 60.394a and table 1 to this subpart.</p> <p>(i) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of this section. The initial compliance period begins on the applicable compliance date specified in § 60.8 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.</p> <p>(ii) You must determine the mass of VOC emissions and volume of coating solids deposited in 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 §§ 60.396a and 60.397a; supporting documentation showing that during the initial compliance period the VOC emission rate was equal to or less than the emission limit in § 60.392a; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 60.394a; and documentation of whether you developed and implemented the work practice plans required by § 60.392(b) and (c).</p> <p>(2) To demonstrate continuous compliance with the applicable emission limit in § 60.392a, the VOC emission rate for each compliance period, determined according to the procedures in this section, must be equal to or less than the applicable emission limit in § 60.392a. A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 60.393a(b)(1)(i)</p>

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	<p>is a compliance period consisting of that month. You must perform the calculations in this section on a monthly basis.</p> <p>(3) If the VOC emission rate for any 1-month compliance period exceeded the applicable emission limit in § 60.392a, this is a deviation from the emission limitation for that compliance period and must be reported as specified in § 60.395a(h).</p> <p>(c) <i>Compliance with operating limits.</i> Except as provided in paragraph (c)(1) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 60.392a, using the procedures specified in § 60.394a.</p> <p>(1) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 60.394a until after you have completed the initial performance test specified in paragraph (b) of this section. During the period between the startup date of the affected source and the initial performance test required by § 60.8 you must maintain a log detailing the operation and maintenance of the emission capture system, the add-on control device, and the continuous monitoring system (CMS).</p> <p>(2) You must demonstrate continuous compliance with each operating limit required by § 60.392a that applies to you, as specified in Table 1 to this subpart, and you must conduct performance tests as specified in paragraph (c)(4) of this section.</p> <p>(3) If an operating parameter is out of the allowed range specified in table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in § 60.395a(h).</p> <p>(4) If an operating parameter deviates from the operating limit specified in table 1 to this subpart, then you 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 § 60.393a (m).</p> <p>(5) Except for solvent recovery systems for which you conduct liquid-liquid material balances according to paragraph (l) of this section for controlled coating operations, you must conduct periodic performance tests of add-on controls and reestablish the operating limits required by § 60.392a within 5 years following the previous performance test. You must conduct the first periodic performance test within 5 years following the initial performance test required by § 60.8. Thereafter, you 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. If you are using the alternative monitoring option for a catalytic oxidizer according to § 60.394a(b)(3) and following the catalyst maintenance procedures in § 60.394a(b)(4), you are not required to conduct periodic control device performance testing as specified by this paragraph (c). For any control device for which instruments are used to continuously measure organic compound emissions, you are not required to conduct periodic control device performance testing as specified by this paragraph. The</p>

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	<p>requirements of this paragraph do not apply to measuring emission capture system efficiency.</p> <p>(6) You must meet the requirements for bypass lines in § 60.394a(h) for control devices other than solvent recovery systems for which you conduct 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 § 60.395a(h). For the purposes of completing the compliance calculations specified in paragraph (j) of this section, you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.</p> <p>(d) <i>Compliance with work practice requirements.</i> You must develop, implement, and document implementation of the work practice plans required by § 60.392a(b) and (c) during the initial compliance period, as specified in § 60.395a.</p> <p>(1) You must demonstrate continuous compliance with the work practice standards in § 60.392a (b) and (c). If you did not develop a work practice plan, if you did not implement the plan, or if you did not keep the records required by § 60.395a (k)(11), this is a deviation from the work practice standards that must be reported as specified in § 60.395a (k)(4).</p> <p>(2) [Reserved]</p> <p>(e) <i>Compliance with emission limits.</i> You must use the following procedures in paragraphs (f) through (m) of this section to determine the monthly volume weighted average mass of VOC emitted per volume of applied coating solids for each affected facility to demonstrate compliance with the applicable emission limitation in § 60.392a. You may also use the guidelines presented in “Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat” EPA-453/R-08-002 (incorporated by reference, see § 60.17) in making this demonstration.</p> <p>(f) <i>Determine the mass fraction of VOC, density, and volume for each material used.</i> You must follow the procedures specified in paragraphs (f)(1) through (3) of this section to determine the mass fraction of VOC, the density, and volume for each coating and thinner used during each month. For the electrodeposition primer operation, the mass fraction of VOC, density, and volume used must be determined for each material added to the tank or system during each month.</p> <p>(1) <i>Determine the mass fraction of VOC for each material used.</i> You must determine the mass fraction of VOC for each material used during the compliance period by using one of the options in paragraphs (f)(1)(i) through (iii) of this section.</p> <p>(i) <i>EPA Method 24 (appendix A-7 to 40 CFR part 60).</i> For coatings, you may use EPA Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for</p>

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	<p>the mass fraction of VOC. As an alternative to using EPA Method 24, you may use ASTM D2369–20 (incorporated by reference, see § 60.17). For Method 24, the coating sample must be a 1-liter sample taken in a 1-liter container.</p> <p>(ii) <i>Alternative method.</i> You may use an alternative test method for determining the mass fraction of VOC once the Administrator has approved it. You must follow the procedure in § 60.8(b)(3) to submit an alternative test method for approval.</p> <p>(iii) <i>Information from the supplier or manufacturer of the material.</i> You may rely on information other than that generated by the test methods specified in paragraphs (f)(1)(i) through (iii) of this section, such as manufacturer's formulation data. If there is a disagreement between such information and results of a test conducted according to paragraphs (f)(1)(i) through (iii) of this section, then the test method results will take precedence, unless after consultation, you demonstrate to the satisfaction of the enforcement authority that the facility's data are correct.</p> <p>(2) <i>Determine the density of each material used.</i> Determine the density of each material used during the compliance period from test results using ASTM D1475–13 (incorporated by reference, see § 60.17) or for powder coatings, test method A or test method B of ASTM D5965–02 (Reapproved 2013) (incorporated by reference, see § 60.17), 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 supplier's or manufacturer's data are correct.</p> <p>(3) <i>Determine the volume of each material used.</i> You must determine from company records on a monthly basis the volume of coating consumed, as received, and the mass of solvent used for thinning purposes.</p> <p>(g) <i>Determine the volume fraction of coating solids for each coating.</i> You must determine the volume fraction of coating solids 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 (g)(1) and (2) of this section. 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 (g)(1) of this section do not agree with the information obtained under paragraph (g)(2) of this section, 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.</p> <p>(1) <i>ASTM Method D2697–22 or ASTM Method D6093–97.</i> You may use ASTM D2697–22 (incorporated by reference, see § 60.17), or ASTM D6093–97 (incorporated by reference, see § 60.17), to determine</p>

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	<p>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.</p> <p>(2) <i>Information from the supplier or manufacturer of the material.</i> You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.</p> <p>(h) <i>Determine the transfer efficiency for each coating.</i> You must determine the transfer efficiency for each non-electrodeposition prime coat coating, each guide coat coating and each topcoat coating using ASTM Method D5066-91 (Reapproved 2017), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints—Weight Basis" (incorporated by reference, see § 60.17), or the guidelines presented in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat" EPA-453/R-08-002 (incorporated by reference, see § 60.17). You may conduct transfer efficiency testing on representative coatings and for representative spray booths as described in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat" EPA-453/R-08-002 (incorporated by reference, see § 60.17). You may assume 100 percent transfer efficiency for electrodeposition primer coatings.</p> <p>(i) <i>Calculate the volume weighted average mass of VOC emitted per volume of applied coating solids before add-on controls.</i></p> <p>(1) Calculate the mass of VOC used in each calendar month for each affected facility using Equation 1 of this section, where "n" is the total number of coatings used and "m" is the total number of VOC solvents used:</p> $M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \text{ (Eq.1)}$ <p>Where:</p> <p>M<sub>o</sub> = total mass of VOC in coatings as received (kilograms).</p> <p>M<sub>d</sub> = total mass of VOC in dilution solvent (kilograms).</p> <p>L<sub>ci</sub> = volume of each coating (i) consumed, as received (liters).</p> <p>D<sub>ci</sub> = density of each coating (i) as received (kilograms per liter).</p> <p>W<sub>oi</sub> = proportion of VOC by weight in each coating (i), as received.</p> <p>L<sub>dj</sub> = volume of each type VOC dilution solvent (j) added to the coatings, as received (liters).</p>

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	<p><math>D_{dj}</math> = density of each type VOC dilution solvent (j) added to the coatings, as received (kilograms per liter).</p> <p>[<math>\sum L_{dj}D_{dj}</math> will be zero if no VOC solvent is added to the coatings, as received.]</p> <p>(2) Calculate the total volume of coating solids used in each calendar month for each affected facility using Equation 2 of this section, where “n” is the total number of coatings used:</p> $L_s = \sum_{i=1}^n L_{ci}V_{si} \text{ (Eq. 2)}$ <p>Where:</p> <p><math>L_s</math> = volume of solids in coatings consumed (liters).</p> <p><math>L_{ci}</math> = volume of each coating (i) consumed, as received (liters).</p> <p><math>V_{si}</math> = proportion of solids by volume in each coating (i) as received.</p> <p>(3) Calculate the transfer efficiency (T) for each surface coating operation according to paragraph (h) of this section.</p> <p>(i) When more than one application method (l) is used on an individual surface coating operation, you must perform an analysis to determine an average transfer efficiency using Equation 3 of this section, where “n” is the total number of coatings used and “p” is the total number of application methods:</p> $T = \frac{\sum_{i=1}^n T_l V_{si} L_{cil}}{\sum_{l=1}^p L_s} \text{ (Eq. 3)}$ <p>Where:</p> <p>T = overall transfer efficiency.</p> <p><math>T_l</math> = transfer efficiency for application method (l).</p> <p><math>V_{si}</math> = proportion of solids by volume in each coating (i) as received</p> <p><i>liter solids</i> <i>liter coating</i>, and</p>

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	<p><math>L_{cil}</math> = Volume of each coating (i) consumed by each application method (l), as received (liters).</p> <p><math>L_s</math> = volume of solids in coatings consumed (liters).</p> <p>(ii) [Reserved]</p> <p>(4) Calculate the volume weighted average mass of VOC per volume of applied coating solids (G) during each calendar month for each affected facility using Equation 4 of this section:</p> $G = \frac{M_o + M_d}{L_s T} \text{ (Eq. 4)}$ <p>Where:</p> <p>G = volume weighted average mass of VOC per volume of applied solids (kilograms per liter).</p> <p><math>M_o</math> = total mass of VOC in coatings as received (kilograms).</p> <p><math>M_d</math> = total mass of VOC in dilution solvent (kilograms).</p> <p><math>L_s</math> = volume of solids in coatings consumed (liters).</p> <p>T = overall transfer efficiency.</p> <p>(5) Select the appropriate limit according to § 60.392a. If the volume weighted average mass of VOC per volume of applied coating solids (G), calculated on a calendar month basis, is less than or equal to the applicable emission limit specified in § 60.392a, the affected facility is in compliance. Each monthly calculation is a performance test for the purpose of this subpart.</p> <p>(j) <i>Calculate the volume weighted average mass of VOC emitted per volume of applied coating solids after add-on controls.</i> You 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 § 60.392a. Use the procedures in paragraph (j)(1) through (5) of this section to calculate volume weighted average mass of VOC per volume of applied coating solids for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, you must use the procedures in paragraph (l) of this section.</p> <p>(1) 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 § 60.393a(i)(4).</p>

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	<p>(2) Calculate the volume weighted average mass of VOC per volume of applied coating solids (N) emitted after the control device using Equation 5 of this section:</p> $N = G[1 - CE * DRE] \text{ (Eq. 5)}$ <p>Where:</p> <p>N = volume weighted average mass of VOC per volume of applied coating solids after the control device in units of kilograms of VOC per liter of applied coating solids.</p> <p>G = volume weighted average mass of VOC per volume of applied coating solids (kilograms per liter).</p> <p>CE = fraction of total VOC that is emitted by an affected facility that enters the control device.</p> <p>DRE = VOC destruction or removal efficiency of the control device.</p> <p>(3) You must use the procedures and test methods in section 60.397a to determine the emission capture system efficiency (CE) as part of the initial performance test.</p> <p>(i) If you 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.</p> <p>(ii) In subsequent months, you must use the most recently determined capture efficiency for the performance test.</p> <p>(4) You must use the procedures and test methods in section 60.396a to determine the add-on control device emission destruction or removal efficiency as part of the initial performance test.</p> <p>(i) In subsequent months, you must use the most recently determined VOC destruction efficiency for the performance test.</p> <p>(ii) If two or more add-on control devices are used for the same emission stream, you must measure emissions at the outlet of each device in accordance with § 60.396a(c). If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions in accordance with § 60.396a(d). The emission destruction or removal efficiency of the add-on control device is the average of the efficiencies determined in the three test runs. The destruction or removal efficiency determined using these data shall be applied to each affected facility served by the control device.</p>



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	<p>(5) Calculate the mass of VOC for each affected facility each calendar month for each period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an emission limitation, an operating limit or any CMS requirement for the capture system or control device serving the controlled coating operation occurred. Except as provided in paragraph (m) of this section, for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an emission limitation or operating limit or from any CMS requirement of the capture system or control device serving the controlled coating operation occurred, you must assume zero efficiency for the emission capture system and add-on control device. During such a deviation you must assume the affected source was uncontrolled for the duration of the deviation using the equation in paragraph (i)(4) of this section.</p> <p>(6) Adjust the volume weighted average mass of VOC per volume of applied coating solids emitted after the control device for each affected facility (N) during a calendar month for periods of deviation by adding the mass of VOC for the uncontrolled period of time according to paragraph (i)(5) of this section.</p> <p>(7) If the adjusted 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 § 60.392a, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of this subpart.</p> <p>(k) <i>Calculate the volume weighted average mass of VOC emitted per volume of applied coating solids after add-on recovery devices.</i> You must use the following procedures for each affected facility which uses a capture system and a control device that recovers the VOC (e.g., carbon adsorber) other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the applicable emission limit specified under § 60.392a.</p> <p>(1) Calculate the mass of VOC (<math>M_o + M_d</math>) used during each calendar month for each affected facility as described under paragraph (i) of this section.</p> <p>(2) Calculate the total volume of coating solids (Ls) used in each calendar month for each affected facility as described under paragraph (i) of this section.</p> <p>(3) Calculate the mass of VOC recovered (Mr) each calendar month for each affected facility by the following equation:</p> $M_r = L_r * D_r$ <p>Where:</p>

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	<p> <math>M_r</math> = total mass of VOC recovered from an affected facility (kilograms).  <math>L_r</math> = volume of VOC recovered from an affected facility (liters).  <math>D_r</math> = density of VOC recovered from an affected facility (kilograms per liter).                 </p> <p>(4) Calculate the volume weighted average mass of VOC per volume of applied coating solids emitted after the control device (N) during a calendar month using Equation 6 of this section:</p> $N = \frac{M_o + M_d - M_r}{L_s T} \text{ (Eq. 6)}$ <p>Where:</p> <p> <math>N</math> = volume weighted average mass of VOC per volume of applied coating solids after the control device in units of kilograms of VOC per liter of applied coating solids.  <math>M_o</math> = total mass of VOC in coatings as received (kilograms).  <math>M_d</math> = total mass of VOC in dilution solvent (kilograms).  <math>M_r</math> = total mass of VOC recovered from an affected facility (kilograms).  <math>L_s</math> = volume of solids in coatings consumed (liters).  <math>T</math> = overall transfer efficiency.                 </p> <p>(5) Adjust the volume weighted average mass of VOC per volume of applied coating solids emitted after the recovery device for each affected facility (N) during a calendar month for periods of deviation by adding the mass of VOC for the uncontrolled periods of time according to paragraph (i)(6) of this section.</p> <p>(6) If the adjusted 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 § 60.392a, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of this subpart.</p> <p>(l) Calculate the collection and recovery efficiency for solvent recovery systems using liquid-liquid material balances. You must use the following procedures for each affected facility which uses a solvent recovery system for which you conduct liquid-liquid material balances to comply with the applicable emission limit specified under § 60.392a.</p>

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	<p>(1) Calculate the mass of VOC emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance for each affected facility by applying the volatile organic matter collection and recovery efficiency to the mass of VOC contained in the coatings and thinners used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (l)(1) through (6) of this section.</p> <p>(2) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ±2.0 percent of the mass of volatile organic matter recovered.</p> <p>(3) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month based on measurement with the device required in paragraphs (l)(l) and (2) of this section.</p> <p>(4) For each affected facility, determine the mass of VOC (Mo + Md) of each coating and thinner controlled by the solvent recovery system for each calendar month using the equation in paragraph (i)(1) of this section.</p> <p>(5) Calculate the solvent recovery system's volatile organic matter collection and recovery efficiency (R<sub>V</sub>) for each affected facility using Equation 7 of this section:</p> $R_V = 100 \frac{M_{VR}}{\sum_{i=1}^m Vol_i D_i WV_{c,i} + \sum_{j=1}^n Vol_j D_j WV_{t,j}} \text{ (Eq. 7)}$ <p>Where:</p> <p>R<sub>V</sub> = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.</p> <p>M<sub>VR</sub> = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.</p> <p>Vol<sub>i</sub> = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.</p> <p>D<sub>i</sub> = Density of coating, i, kg per liter.</p> <p>WV<sub>c, i</sub> = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg</p>

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	<p>coating.</p> <p><math>Vol_j</math> = Volume of thinner, <math>j</math>, used in the coating operation controlled by the solvent recovery system during the month, liters.</p> <p><math>D_j</math> = Density of thinner, <math>j</math>, kg per liter.</p> <p><math>WV_{t,j}</math> = Mass fraction of volatile organic matter for thinner, <math>j</math>, kg volatile organic matter per kg thinner.</p> <p><math>m</math> = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.</p> <p><math>n</math> = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.</p> <p>(6) For each affected facility, you may apply the solvent recovery system's volatile organic matter collection and recovery efficiency to the mass of VOC for the coating operation controlled by the solvent recovery system for each calendar month.</p> <p>(m) <i>Deviations</i>. You 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 emission limitation, operating limit or any CMS requirement for the capture system or add-on control device serving a controlled coating operation occurred.</p> <p>(1) If you have manually collected parameter data indicating that a capture system or add-on control device was operating normally during a CMS malfunction, a CMS out-of-control period, or associated repair, then these data may be used to support and document your request to use the normal capture efficiency or add-on control device efficiency for that period of deviation.</p> <p>(2) If you have 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 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 emission limitation or operating limit or from any CMS 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 your request to use these values for that period of deviation.</p> <p>(3) You may recalculate the adjusted volume weighted average mass of VOC emitted per volume of applied coating solids after add-on controls in paragraph (j)(6) of this section, and the adjusted</p>

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	<p>volume weighted average mass of VOC per volume of applied coating solids emitted after the recovery device in paragraph (k)(4) of this section, based on Administrator approval of the non-zero capture efficiency and add-on control device efficiency values based on data provided in accordance with paragraphs (m)(1) and (2) of this section.</p> <p>(n) <i>No deviations.</i> If there were no deviations from the emission limitations, submit a statement as part of the compliance report that you were in compliance with the emission limitations during the reporting period because the VOC emission rate for each compliance period was less than or equal to the applicable emission limit in § 60.392a, you achieved the operating limits required by § 60.394a, and you achieved the work practice standards required by § 60.392a during each compliance period.</p> <p>(o) <i>Recordkeeping.</i> You must maintain records as specified in § 60.395a.</p>
B.38	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02, BC01, CC01, TT01, BC02, CC02, TT02, SR01, AR01, SR02, AR02, BSAA01, BSAA02, PMR1, PMR2, PS, CS, Polish</p> <p><b>Control Device ID:</b> RTO 1, ADW 1, RTO 2, ADW 2</p> <p><b>§ 60.394a Add-on control device operating limits and monitoring requirements.</b></p> <p>During the performance tests required by § 60.393a, if you use an add-on control device(s) to comply with the emission limits specified under § 60.392a(a) through (c), you must establish add-on control device operating limits required by § 60.392a(h) according to this section, unless approval has been received for alternative monitoring under § 60.13(i) as specified in § 60.392a(h).</p> <p>(a) Thermal oxidizers. If your add-on control device is a thermal oxidizer, establish the operating limit according to paragraphs (a)(1) and (2) of this section.</p> <p>(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.</p> <p>(2) 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 your thermal oxidizer.</p> <p>(b) – (d) ...</p> <p>(e) Concentrators. If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) and (2) of this section.</p> <p>(1) During the performance test, you must monitor and record the desorption gas inlet temperature</p>

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	<p>at least once every 15 minutes during each of the three runs of the performance test.</p> <p>(2) 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. You 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.</p> <p>(g) Monitoring requirements. If you use an add-on control device(s) to comply with the emission limits specified under § 60.392a(a) through (c), you must install, operate, and maintain each CMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (g)(1) through (6) of this section. You must install, operate, and maintain each CMS specified in paragraphs (h) and (i) of this section according to paragraphs (g)(3) through (5) of this section.</p> <p>(1) The CMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CMS operation in 1 hour.</p> <p>(2) You 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.</p> <p>(3) You must record the results of each inspection, calibration, and validation check of the CMS.</p> <p>(4) You must maintain the CMS at all times in accordance with § 60.11(d) and have readily available necessary parts for routine repairs of the monitoring equipment.</p> <p>(5) You must operate the CMS 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 § 60.11(d).</p> <p>(6) 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 § 60.392a(a) through (c) are being attained. You 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. You 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.</p> <p>(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the</p>

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	<p>CMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Except for periods of required quality assurance or control activities, any period during which the CMS fails to operate and record data continuously as required by paragraph (g)(1) of this section or generates data that cannot be included in calculating averages as specified in this paragraph (g)(7) constitutes a deviation from the monitoring requirements.</p> <p>(h) Capture system bypass line. You must meet the requirements of paragraphs (h)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.</p> <p>(1) You 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 (h)(1)(i) through (iv) of this section.</p> <p>(i) 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.</p> <p>(ii) 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. You 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.</p> <p>(iii) 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. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.</p> <p>(iv) 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. You 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.</p> <p>(2) If any bypass line is opened, you must include a description of why the bypass line was opened</p>

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	<p>and the length of time it remained open in the semiannual compliance reports required in § 60.395a.</p> <p>(i) Thermal oxidizers and catalytic oxidizers. If you are 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), you must comply with the requirements in paragraphs (i)(1) through (3) of this section:</p> <p>(1) 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.</p> <p>(2) ...</p> <p>(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (g)(1) through (6) and (i)(3)(i) through (vii) of this section for each gas temperature monitoring device, unless approval has been received for alternative monitoring under § 60.13(i) as specified in § 60.392a(h). For the purposes of this paragraph (i)(3), a thermocouple is part of the temperature sensor.</p> <p>(i) Locate the temperature sensor in a position that provides a representative temperature.</p> <p>(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.</p> <p>(iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.</p> <p>(iv) The gas temperature sensor must be capable of recording the temperature continuously. If a gas temperature chart recorder is used, it must have a measurement sensitivity in the minor division of at least 20 degrees Fahrenheit.</p> <p>(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owner's manual. Following the electronic calibration, you 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.</p> <p>(vi) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.</p> <p>(vii) At least monthly, inspect components for integrity and electrical connections for continuity,</p>



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	<p>oxidation, and galvanic corrosion.</p> <p>(viii) At least monthly, inspect components for integrity and electrical connections for continuity, oxidation, and galvanic corrosion.</p> <p>(j) - (k) ...</p> <p>(l) Concentrators. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (g)(1) through (6) and (i)(3) of this section.</p>
B.39	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02, BC01, CC01, TT01, BC02, CC02, TT02, SR01, AR01, SR02, AR02, BSAA01, BSAA02, PMR1, PMR2, PS, CS, Polish</p> <p><b>Control Device ID:</b> RTO 1, ADW 1, RTO 2, ADW 2</p> <p><b>§ 60.395a Notifications, reports, and records.</b></p> <p>(a) Notifications. You must submit all notifications in §§ 60.7, 60.8, and 60.13 that apply to you by the dates specified in those sections and in paragraphs (a)(1) through (5) of this section.</p> <p>(1) A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced no later than 30 days after such date.</p> <p>(2) A notification of the actual date of initial startup of an affected facility within 15 days after such date.</p> <p>(3) A notification of any physical or operational change to an existing facility which may increase the VOC emission rate within 60 days or as soon as practicable before the change is commenced.</p> <p>(4) A notification of the date upon which demonstration of the CMS performance commences in accordance with § 60.13(c) not less than 30 days prior to such date.</p> <p>(5) A notification of any performance test at least 30 days prior to afford the Administrator (or delegated State or local agency) the opportunity to have an observer present.</p> <p>(b) Initial performance test report. If you use add-on control devices, you must submit reports of performance test results for emission capture systems and add-on control devices. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, you are required to conduct performance test(s) and furnish the Administrator a report of the results of such performance test(s) in accordance with § 60.8(a). You are also required to conduct transfer efficiency test(s) and submit reports of the results of transfer efficiency tests and furnish the Administrator a report of the results of such transfer</p>

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	<p>efficiency tests. The initial performance test report must include the information specified in § 60.8.</p> <p>(c) Subsequent performance test reports. You must conduct periodic performance tests of add-on control devices in accordance with § 60.393a(b) within five years of the previous performance test and at such other times as may be required by the Administrator under section 114 of the Act in accordance with § 60.8(a). You must furnish the Administrator a written report of the results of such performance test(s) within 60 days of completing the performance test. Periodic testing of transfer efficiency and capture efficiency are not required.</p> <p>(d) Compliance reports. Following the initial performance test, you must submit a quarterly or semiannual compliance report for each affected source required by § 60.8 according to the requirements of paragraphs (e) and (f) of this section. You must identify, record, and submit a report to the Administrator every calendar quarter each instance a deviation occurred from the emission limits, operating limits, or work practices in §§ 60.392a, 60.393a, and 60.394a, that apply to you. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually. For each affected source that is subject to 40 CFR part 70 or 71 permitting regulations and if the permitting authority has established dates for submitting semiannual compliance reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the semiannual compliance reports according to the dates the permitting authority has established.</p> <p>(e) Initial compliance report. You must include the data outlined in paragraphs (e)(1) and (2) of this section in the initial compliance report required by § 60.8 and the information required by paragraphs (f) through (h) of this section.</p> <p>(1) The volume weighted average mass of VOC per volume of applied coating solids for each affected facility.</p> <p>(2) Where compliance is achieved through the use of a capture or control device, include the following additional data in the initial performance test report required by § 60.8(a) specified in paragraphs (e)(2)(i) through (v) of this section:</p> <p>(i) The data collected to establish the operating limits for the appropriate capture or control device required as by § 60.394a and table 1 to this subpart;</p> <p>(ii) The total mass of VOC per volume of applied coating solids before and after the control device as required by § 60.396a;</p> <p>(iii) The destruction efficiency of the control device used to attain compliance with the applicable emission limit specified in § 60.392a(a);</p> <p>(iv) The capture efficiency as required by § 60.397a and a description of the method used to</p>

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	<p>establish the capture efficiency for the affected facility; and</p> <p>(v) The transfer efficiency test results and a description of the method used to establish the transfer efficiency for the affected facility.</p> <p>(f) Compliance report content. Compliance reports must contain the information specified in paragraphs (f)(1) through (4) of this section and paragraph (g) that are applicable to your affected source.</p> <p>(1) Company name and address.</p> <p>(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.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) Identification of the affected source.</p> <p>(g) No deviations. If there were no deviations from the emission limits, work practices, or operating limits in §§ 60.392a and 60.394a, that apply to you, the compliance report must include a statement that there were no deviations from the applicable emission limitations during the reporting period. If you used control devices to comply with the emission limits, and there were no periods during which the CMS were out of control as specified in § 60.394a(g) the compliance report must include a statement that there were no periods during which the CMS were out of control during the reporting period.</p> <p>(h) Deviations. If there was a deviation from the applicable emission limits in § 60.392a or the applicable operating limit(s) in table 1 to this subpart or the work practice standards in § 60.392a, the compliance report must contain the information in paragraphs (h)(1) through (15) of this section.</p> <p>(1) The beginning and ending dates of each month during which the volume-weighted average of the total mass of VOC emitted to the atmosphere per volume of applied coating solids (N) for the affected source exceeded the applicable emission limit in § 60.392a.</p> <p>(2) The calculation used to determine the volume-weighted average of the total mass of VOC emitted to the atmosphere per volume of applied coating solids (N) in accordance with § 60.395a. You do not need to submit the background data supporting these calculations, for example information provided by materials suppliers or manufacturers, or test reports.</p> <p>(3) The date and time that each malfunction of the capture system or add-on control devices used</p>

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	<p>to control emissions from these operations started and stopped.</p> <p>(4) A brief description of the CMS.</p> <p>(5) The date of the latest CMS certification or audit.</p> <p>(6) For each instance that the CMS was inoperative, except for zero (low-level) and high-level checks, the date, time, and duration that the CMS was inoperative; the cause (including unknown cause) for the CMS being inoperative; and descriptions of corrective actions taken.</p> <p>(7) For each instance that the CMS was malfunctioning or out-of-control, as specified in § 60.394a(g)(6) or (7), the date, time, and duration that the CMS was malfunctioning or out-of-control; the cause (including unknown cause) for the CMS malfunctioning or being out-of-control; and descriptions of corrective actions taken.</p> <p>(8) The date, time, and duration of each deviation from an operating limit in table 1 to this subpart; and the date, time, and duration of each bypass of an add-on control device.</p> <p>(9) 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 this subpart and the bypass of each add-on control device during the semiannual reporting period.</p> <p>(10) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart 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.</p> <p>(11) A summary of the total duration and the percent of the total source operating time of the downtime for each CMS during the semiannual reporting period.</p> <p>(12) A description of any changes in the CMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.</p> <p>(13) For deviations from the work practice standards, the number of deviations, and, for each deviation, the information in paragraphs (h)(13)(i) and (ii) of this section.</p> <p>(i) A description of the deviation, the date, time, and duration of the deviation; and the actions you took to minimize emissions in accordance with § 60.11(d).</p> <p>(ii) 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</p>

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	<p>affected unit to its normal or usual manner of operation.</p> <p>(14) For deviations from an emission limitation in § 60.392a or operating limit in Table 1 of this subpart, a statement of the cause of each deviation (including unknown cause, if applicable).</p> <p>(15) For each deviation from an emission limitation in § 60.392a, or operating limit in Table 1 to this subpart, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of VOC emitted over any emission limit in § 60.392a, and a description of the method used to estimate the emissions.</p> <p>(i) Electronic reporting of performance test data. Where compliance is achieved through the use of add-on control devices, the owner or operator shall submit control device performance test results for initial and subsequent performance tests according to paragraphs (b) and (c) of this section within 60 days of completing each performance test following the procedures specified in paragraphs (i)(1) through (3) of this section.</p> <p>(1) Supported test methods. Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<a href="https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert">https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert</a>) at the time of the test.</p> <p>(i) Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<a href="https://cdx.epa.gov/">https://cdx.epa.gov/</a>).</p> <p>(ii) The data must be submitted in a file format generated using the EPA's ERT. Alternatively, the owner or operator may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.</p> <p>(2) Unsupported test methods. 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.</p> <p>(i) The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.</p> <p>(ii) Submit the ERT generated package or alternative file to the EPA via CEDRI.</p> <p>(3) Confidential business information (CBI). Do not use CEDRI to submit information you claim as CBI. Any information submitted using CEDRI cannot later be claimed CBI. Under CAA section 114(c), emissions data are not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. Owners or operators that assert a CBI claim for any information submitted under</p>

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	<p>paragraph (i)(1) or (i)(2) of this section, must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Owners or operators can submit CBI according to one of the two procedures in paragraph (i)(3)(i) or (ii) of this section. All CBI claims must be asserted at the time of submission.</p> <p>(i) If sending CBI through the postal service, submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Owners or operators are required to mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Automobile and Light Duty Truck Surface Coating Operations Sector Lead, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraphs (i)(1) and (2) of this section.</p> <p>(ii) The EPA preferred method for CBI submittal is for it to be transmitted electronically using email attachments, File Transfer Protocol (FTP), or other online file sharing services (e.g., Dropbox, OneDrive, Google Drive). Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address <a href="mailto:oaqpscbi@epa.gov">oaqpscbi@epa.gov</a>, and as described above, should be clearly identified as CBI and note Attention: Automobile and Light Duty Truck Surface Coating Operations Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, you can email <a href="mailto:oaqpscbi@epa.gov">oaqpscbi@epa.gov</a> to request a file transfer link.</p> <p>(j) Electronic submittal of reports. The owner or operator shall submit the reports listed in paragraphs (b) through (e) of this section following the procedures specified in paragraphs (j)(1) through (3) of this section. In addition to the information required in paragraphs (b) through (h) of this section, owners or operators are required to report excess emissions and a monitoring systems performance report and a summary report to the Administrator according to § 60.7(c) and (d). Owners or operators are required by § 60.7(c) and (d) to report the date, time, cause, and duration of each exceedance of the applicable emission limit specified in § 60.392a(a), any malfunction of the air pollution control equipment, and any periods during which the CMS or monitoring device is inoperative, malfunctioning, or out-of-control. For each failure, the report must include a list of the affected sources or equipment and a description of the method used to estimate the emissions.</p> <p>(1) Effective date. On and after November 6, 2023, or once the reporting template has been available on the CEDRI website for 1-year, whichever date is later, owners or operators must use the appropriate spreadsheet template on the CEDRI website (<a href="https://www.epa.gov/electronic-reporting-air-emissions/cedri">https://www.epa.gov/electronic-reporting-air-emissions/cedri</a>) for this subpart. The date the reporting template for this subpart becomes available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method by which the report is submitted. Submit all reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (<a href="https://cdx.epa.gov/">https://cdx.epa.gov/</a>). The EPA will make all the information submitted through CEDRI available to the public without further notice to the owner or operator. Do not use CEDRI to submit information you claim as CBI. Any information</p>

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	<p>submitted using CEDRI cannot later be claimed CBI. If you claim CBI, submit the report following the procedure described in paragraph (i)(3) of this section. The same file with the CBI omitted must be submitted to CEDRI as described in this paragraph.</p> <p>(2) System outage. Owner or operators that are required to submit a report electronically through CEDRI in the EPA's CDX, may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, owners or operators must meet the requirements outlined in paragraphs (e)(2)(i) through (vii) of this section.</p> <p>(i) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.</p> <p>(ii) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.</p> <p>(iii) The outage may be planned or unplanned.</p> <p>(iv) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.</p> <p>(v) You must provide to the Administrator a written description identifying:</p> <p>(A) The date(s) and time(s) when CDX or CEDRI was accessed, and the system was unavailable;</p> <p>(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;</p> <p>(C) A description of measures taken or to be taken to minimize the delay in reporting; and</p> <p>(D) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.</p> <p>(vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.</p> <p>(vii) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.</p> <p>(3) Force majeure. Owner or operators that are required to submit a report electronically through CEDRI in the EPA's CDX, may assert a claim of force majeure for failure to timely comply with that</p>

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	<p>reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (j)(3)(i) through (iv) of this section.</p> <p>(i) You may submit a claim if 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 five business days prior to the date the submission is due. For the purposes of this section, 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 you 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).</p> <p>(ii) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.</p> <p>(iii) You must provide to the Administrator:</p> <p>(A) A written description of the force majeure event;</p> <p>(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;</p> <p>(C) A description of measures taken or to be taken to minimize the delay in reporting; and</p> <p>(D) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.</p> <p>(iv) 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.</p> <p>(k) Recordkeeping. You must collect and keep records of the data and information specified in paragraphs (k)(1) through (12) of this section. Failure to collect and keep these records is a deviation from the applicable standard.</p> <p>(1) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.</p> <p>(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 VOC, the</p>



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	<p>density and the volume fraction of coating solids for each coating, and the mass fraction of VOC and the density for each thinner. If you conducted testing to determine mass fraction of VOC, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. If you use the results of an analysis conducted by an outside testing lab, you must keep a copy of the test report. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.</p> <p>(3) For each month, the records specified in paragraphs (k)(3)(i) through (iii) of this section.</p> <p>(i) For each coating used for the affected source, a record of the volume used in each month, the mass fraction VOC content, the density, and the volume fraction of solids.</p> <p>(ii) For each thinner used in coating operations for the affected source, a record of the volume used in each month, the mass fraction VOC content, and the density.</p> <p>(iii) A record of the calculation of the VOC emission rate for the affected source for each month. This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat" EPA-453/R-08-002 (incorporated by reference, see § 60.17), are used, you 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.</p> <p>(4) For each deviation from an emission limitation, operating limit, or work practice plan reported under paragraph (h) of this section, a record of the information specified in paragraphs (4)(i) through (iv) of this section, as applicable.</p> <p>(i) The date, time, and duration of the deviation, and for each deviation, the information as reported under paragraph (h) of this section.</p> <p>(ii) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under paragraph (h) of this section.</p> <p>(iii) An estimate of the quantity of VOC emitted over any applicable emission limit in § 60.392a or any applicable operating limit in Table 1 to this subpart, and a description of the method used to calculate the estimate, as reported under paragraph (h) of this section.</p> <p>(iv) A record of actions taken to minimize emissions in accordance with § 60.11(d) and any</p>

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	<p>corrective actions taken to return the affected unit to its normal or usual manner of operation.</p> <p>(5) The records required by § 60.7(b) and (c) related to SSM.</p> <p>(6) For each capture system that is a PTE, the data and documentation you 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 § 60.397a(a).</p> <p>(7) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in § 60.397a(b) through (g), including the records specified in paragraphs (k)(7)(i) through (iv) of this section that apply to you.</p> <p>(i) Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure. Records of the mass of total VOC, as measured by Method 204A or F of appendix M to 40 CFR part 51, for each material used in the coating operation, and the total VOC for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of VOC 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.</p> <p>(ii) Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure. Records of the mass of VOC 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 VOC 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.</p> <p>(iii) Records for panel tests. Records needed to document a capture efficiency determination using a panel test as described in § 60.397a(e) and (g), including a copy of the test report and calculations performed to convert the panel test results to percent capture efficiency values.</p> <p>(iv) Records for an alternative protocol. Records needed to document a capture efficiency determination using an alternative method or protocol, as specified in § 60.397a(f), if applicable.</p> <p>(8) The records specified in paragraphs (k)(8)(i) and (ii) of this section for each add-on control device</p>

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	<p>VOC destruction or removal efficiency determination as specified in § 60.393a.</p> <p>(i) Records of each add-on control device performance test conducted according to § 60.393a.</p> <p>(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.</p> <p>(9) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 60.394a and to document compliance with the operating limits as specified in table 1 to this subpart.</p> <p>(10) Records of the data and calculations you used to determine the transfer efficiency for guide coat and topcoat coating operations pursuant to § 60.393a(h).</p> <p>(11) A record of the work practice plans required by § 60.392a(b) and (c) and documentation that you are implementing the plans on a continuous basis. Appropriate documentation may include operational and maintenance records, records of documented inspections, and records of internal audits.</p> <p>(12) For each add-on control device and for each CMS, 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. You may prepare your own equipment operating instructions, or they may be provided to you by the equipment supplier or other third party.</p> <p>(l) Record form and retention time.</p> <p>(1) Any records required to be maintained by this subpart 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.</p> <p>(2) Except as provided in paragraph (k)(12) of this section, you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(3) Except as provided in paragraph (k)(12) of this section, you must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. You may keep the records off site for the remaining 3 years.</p>
B.40	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02, BC01, CC01, TT01, BC02, CC02, TT02, SR01, AR01, SR02, AR02, BSAA01, BSAA02, PMR1, PMR2, PS, CS, Polish</p> <p><b>Control Device ID:</b> RTO 1, ADW 1, RTO 2, ADW 2</p>

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	<p data-bbox="272 426 993 457"><b>§ 60.396a Add-on control device destruction efficiency.</b></p> <p data-bbox="272 499 1520 636">You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 60.393a(j)(4), except as provided in § 60.8. You must conduct three test runs as specified in §§ 60.8(f) and 60.394a, and each test run must last at least 1 hour.</p> <p data-bbox="272 678 1520 747">(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.</p> <p data-bbox="293 789 1520 858">(1) 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.</p> <p data-bbox="293 900 1520 970">(2) 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.</p> <p data-bbox="293 1012 1520 1115">(3) 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 ASME/ANSI PTC 19.10-1981 (incorporated by reference, see § 60.17), may be used as an alternative to EPA Method 3B.</p> <p data-bbox="293 1157 1398 1188">(4) Use EPA Method 4 of appendix A-3 to 40 CFR part 60 to determine stack gas moisture.</p> <p data-bbox="293 1230 1520 1299">(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.</p> <p data-bbox="272 1341 1520 1514">(b) Measure total gaseous organic mass emissions as carbon in the effluent gas leaving each stack not equipped with a control device and 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 this section. You must use the same method for both the inlet and outlet measurements.</p> <p data-bbox="293 1556 1520 1659">(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million by volume (ppmv) at the control device outlet.</p> <p data-bbox="293 1701 1520 1770">(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppmv or less at the control device outlet.</p> <p data-bbox="293 1812 1068 1843">(3) Use Method 25A if the add-control device is not an oxidizer.</p>

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	<p>(4) You 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.</p> <p>(5) For Method 25 and 25A, the sampling time for each of three runs must be at least one hour. The minimum sample volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator. The Administrator will approve the sampling of representative stacks on a case-by-case basis if you can demonstrate to the satisfaction of the Administrator that the testing of representative stacks would yield results comparable to those that would be obtained by testing all stacks.</p> <p>(c) If two or more add-on control devices are used for the same emission stream, then you 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, you must measure emissions at the outlet of the oxidizer and the high-volume dilute stream outlet of the concentrator.</p> <p>(d) For each test run, determine the total gaseous organic emissions mass flow rates (<math>M_f</math>) for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.</p> $M_f = Q_{sd}C_c(12)(0.0416)(10^{-6}) \text{ (Eq. 1)}$ <p>Where:</p> <p><math>M_f</math> = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).</p> <p><math>C_c</math> = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.</p> <p><math>Q_{sd}</math> = 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). 0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (<math>\text{mol}/\text{m}^3</math>) (@293 Kelvin (K) and 760 millimeters of mercury (mmHg)).</p> <p>(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section:</p>

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	$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} (100) \text{ (Eq. 2)}$ <p>Where:</p> <p>DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.</p> <p><math>M_{fi}</math> = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.</p> <p><math>M_{fo}</math> = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.</p> <p>(f) 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 this section.</p>
B.41	<p><b>Equipment ID:</b> ED01, EO01, ED02, EO02, BC01, CC01, TT01, BC02, CC02, TT02, SR01, AR01, SR02, AR02, BSAA01, BSAA02, PMR1, PMR2, PS, CS, Polish</p> <p><b>Control Device ID:</b> RTO 1, ADW 1, RTO 2, ADW 2</p> <p><b>§ 60.397a Emission capture system efficiency.</b></p> <p>You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 60.393a. For purposes of this subpart, a spray booth air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate 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 this subpart, a bake oven air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you 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. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations as part of showing that your capture system is a PTE or conducting a capture efficiency test using a temporary total enclosure. You 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 you elect to treat that spray booth air seal as a natural draft opening. You 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 you elect to treat that bake oven air seal as a natural draft opening.</p> <p>(a) <i>Assuming 100 percent capture efficiency.</i> You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:</p> <p>(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE</p>

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	<p>and directs all the exhaust gases from the enclosure to an add-on control device.</p> <p>(2) 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.</p> <p>(b) <i>Measuring capture efficiency.</i> If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the five procedures described in paragraphs (c) through (g) of this section to measure capture efficiency. For the protocols in paragraphs (c) and (d) of this section, 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.</p> <p>(c) <i>Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.</i> The liquid-to-uncaptured-gas protocol compares the mass of liquid VOC in materials used in the coating operation to the mass of VOC 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 this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.</p> <p>(1) 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.</p> <p>(2) Use Method 204A or F of appendix M to 40 CFR part 51 to determine the mass fraction of VOC liquid input from each coating and thinner used in the coating operation during each capture efficiency test run.</p> <p>(3) Use Equation 1 of this section to calculate the total mass of VOC liquid input (<math>VOC_{used}</math>) from all the coatings and thinners used in the coating operation during each capture efficiency test run.</p> $VOC_{used} = \sum_{i=1}^n (VOC_i)(Vol_i)(D_i) \quad (\text{Eq. 1})$

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	<p>Where:</p> <p><math>VOC_i</math> = Mass fraction of VOC in coating or thinner, <math>i</math>, used in the coating operation during the capture efficiency test run, kg VOC per kg material.</p> <p><math>Vol_i</math> = Total volume of coating or thinner, <math>i</math>, used in the coating operation during the capture efficiency test run, liters.</p> <p><math>D_i</math> = Density of coating or thinner, <math>i</math>, kg material per liter material.</p> <p><math>n</math> = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.</p> <p>(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of VOC 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.</p> <p>(i) Use Method 204D if the enclosure is a temporary total enclosure.</p> <p>(ii) 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.</p> <p>(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:</p> $CE = \frac{(VOC_{used} - VOC_{uncaptured})}{VOC_{used}} \times 100 \text{ (Eq. 2)}$ <p>Where:</p> <p>CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.</p> <p><math>VOC_{used}</math> = Total mass of VOC liquid input used in the coating operation during the capture efficiency test run, kg.</p> <p><math>VOC_{uncaptured}</math> = Total mass of VOC 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.</p>



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	<p>(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.</p> <p>(d) <i>Gas-to-gas protocol using a temporary total enclosure or a building enclosure.</i> The gas-to-gas protocol compares the mass of VOC emissions captured by the emission capture system to the mass of VOC emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.</p> <p>(1) 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 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.</p> <p>(2) Use Method 204B or C of appendix M to 40 CFR part 51 to measure the total mass, kg, of VOC emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device.</p> <p>(i) 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.</p> <p>(ii) 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.</p> <p>(3) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of VOC 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 VOC for each occurrence of the term VOC in the methods.</p> <p>(i) Use Method 204D if the enclosure is a temporary total enclosure.</p> <p>(ii) 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</p>

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	<p data-bbox="310 386 883 420">fans and blowers must be operating normally.</p> <p data-bbox="290 459 1521 527">(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:</p> $CE = \frac{VOC_{captured}}{(VOC_{captured} + VOC_{uncaptured})} \times 100 \text{ (Eq. 3)}$ <p data-bbox="310 663 404 695">Where:</p> <p data-bbox="329 737 1521 804">CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.</p> <p data-bbox="329 846 1521 913">VOC<sub>captured</sub> = Total mass of VOC 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.</p> <p data-bbox="329 955 1521 1060">VOC<sub>uncaptured</sub> = Total mass of VOC 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.</p> <p data-bbox="290 1102 1521 1169">(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.</p> <p data-bbox="271 1211 1521 1675">(e) <i>Panel testing to determine the capture efficiency of flash-off or bake oven emissions.</i> You may conduct panel testing to determine the capture efficiency of flash-off or bake oven emissions using ASTM Method D5087-02 (Reapproved 2021), "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see § 60.17), ASTM Method D6266-00a (Reapproved 2017), "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see § 60.17), or the guidelines presented in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat" EPA-453/R-08-002 (incorporated by reference, see § 60.17). You 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 Primer-Surfacer and Topcoat" EPA-453/R-08-002 (incorporated by reference, see § 60.17).</p> <p data-bbox="290 1717 1521 1858">(1) 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 4 of this section:</p>

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	<p style="text-align: center;"><math>V_{sdep,i} = (V_{s,i})(TE_{c,i})</math> (Eq. 4)</p> <p>Where:</p> <p><math>V_{sdep,i}</math> = 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 test is conducted, liter of coating solids deposited per liter of coating used.</p> <p><math>V_{s,i}</math> = 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 § 60.393a(g).</p> <p><math>TE_{c,i}</math> = 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 § 60.393a(h), 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.)</p> <p>(2) 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 5 of this section:</p> <p style="text-align: center;"><math>VOC_i = (D_{c,i})(Wvoc_{c,i})</math> (Eq. 5)</p> <p>Where:</p> <p><math>VOC_i</math> = 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.</p> <p><math>D_{c,i}</math> = Density of coating, i, or average density of the group of coatings, including coating, i, kg coating per liter coating, density determined according to § 60.393a(f)(2).</p> <p><math>Wvoc_{c,i}</math> = 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</p>

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	<p>content presented in Section 9 of "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat, EPA-453/R-08-002" (incorporated by reference, see § 60.17).</p> <p>(3) As an alternative, you may choose to express the results of your 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 this section. If you panel test representative coatings, then you 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, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section; 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 this section. If you panel test each coating, then you 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 this section. 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 6 of this section:</p> $CE_i = (P_{m,i})(W_{sdep,i})(100)/(W_{voc,c,i}) \text{ (Eq.6)}$ <p>Where:</p> <p><math>CE_i</math> = 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> <p><math>P_{m,i}</math> = 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.</p> <p><math>W_{sdep,i}</math> = 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 this section.</p> <p><math>W_{voc,c,i}</math> = 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 Primer-Surfacer and Topcoat, EPA-453/R-08-</p>

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	<p>002" (incorporated by reference, see § 60.17).</p> <p>(4) 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 7 of this section:</p> $W_{sdep,i} = (W_{s,i})(TE_{c,i}) \text{ (Eq. 7)}$ <p>Where:</p> <p><math>W_{sdep,i}</math> = 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.</p> <p><math>W_{s,i}</math> = 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 Primer-Surfacer and Topcoat, EPA-453/R-08-002" (incorporated by reference, see § 60.17).</p> <p><math>TE_{c,i}</math> = 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 § 60.393a(h), 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.)</p> <p>(f) <i>Alternative capture efficiency procedure.</i> As an alternative to the procedures specified in paragraphs (c) through (e) and (g) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective (DQO) or Lower Confidence Limit (LCL) approach as described in appendix A to subpart KK of 40 CFR part 63.</p> <p>(g) <i>Panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings.</i> You may conduct panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings using the procedure in appendix A to this subpart.</p> <p>Table 1 to Subpart MMa of Part 60—Operating Limits for Capture Systems and Add-On Control</p>

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	<p>Devices</p> <p>[If you are required to comply with operating limits by § 60.392a(g), you must comply with the applicable operating limits in the following table.]</p> <table border="1"> <thead> <tr> <th>For the following device . . .</th> <th>You must meet the following operating limit . . .</th> <th>And you must demonstrate continuous compliance with the operating limit by . . .</th> </tr> </thead> <tbody> <tr> <td>1. Thermal oxidizer</td> <td>a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 60.394a(a)</td> <td>i. Collecting the combustion temperature data according to § 60.394a(i); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.</td> </tr> <tr> <td>5. Concentrators, including zeolite wheels and rotary carbon adsorbers</td> <td>a. The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to § 60.394a(e)</td> <td>i. Collecting the temperature data according to § 60.394a(l); ii. Reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.</td> </tr> </tbody> </table>		For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .	1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 60.394a(a)	i. Collecting the combustion temperature data according to § 60.394a(i); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.	5. Concentrators, including zeolite wheels and rotary carbon adsorbers	a. The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to § 60.394a(e)	i. Collecting the temperature data according to § 60.394a(l); ii. Reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.
For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .									
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 60.394a(a)	i. Collecting the combustion temperature data according to § 60.394a(i); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.									
5. Concentrators, including zeolite wheels and rotary carbon adsorbers	a. The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to § 60.394a(e)	i. Collecting the temperature data according to § 60.394a(l); ii. Reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.									
B.42	<p><b>Equipment ID:</b> 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03</p> <p>These sources are subject to New Source Performance Standards (NSPS), 40 CFR 60 and S.C. Regulation 61-62.60 Subpart A, General Provisions and Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as applicable. These sources shall comply with all applicable requirements of Subparts A and IIII.</p> <p><b>§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?</b></p> <p>(a)...</p> <p>(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model</p>										

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	<p>year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.</p> <p>(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.</p> <p>(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.</p> <p>(1) ...</p> <p>(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:</p> <p>(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;</p> <p>(ii) <math>44 \cdot n^{-0.23}</math> g/KW-hr (<math>33 \cdot n^{-0.23}</math> g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and</p> <p>(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.</p> <p>(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).</p> <p>(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in § 60.4212.</p> <p>(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.</p> <p><b>§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?</b></p> <p>Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.</p> <p><b>§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?</b></p>

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	<p>(a) ...</p> <p>(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.</p> <p>(c) ...</p> <p>(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder must use diesel fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).</p>
B.43	<p><b>Equipment ID:</b> 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03</p> <p><b>§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?</b></p> <p>(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.</p> <p>(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.</p> <p>(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.</p> <p>(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.</p> <p>(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.</p> <p>(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the</p>



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	<p>applicable requirements for 2015 model year non-emergency engines.</p> <p>(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.</p> <p>(h) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.</p> <p>(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location</p>
B.44	<p><b>Equipment ID:</b> 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03</p> <p><b>§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?</b></p> <p>If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.</p> <p>(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.</p> <p>(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.</p> <p><b>§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?</b></p> <p>(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:</p> <p>(1) Operate and maintain the stationary CI internal combustion engine and control device according</p>

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	<p>to the manufacturer's emission-related written instructions;</p> <p>(2) Change only those emission-related settings that are permitted by the manufacturer; and</p> <p>(3) Meet the requirements of 40 CFR part 1068, as they apply to you.</p> <p>(b) ...</p> <p>(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.</p> <p>(d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.</p> <p>(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.</p> <p>(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.</p> <p>(i) Identification of the specific parameters you propose to monitor continuously;</p> <p>(ii) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions;</p> <p>(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;</p> <p>(iv) A discussion identifying the methods and the instruments you will use to monitor these</p>

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	<p>parameters, as well as the relative accuracy and precision of these methods and instruments; and</p> <p>(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.</p> <p>(3) ...</p> <p>(e) ...</p> <p>(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.</p> <p>(1) There is no time limit on the use of emergency stationary ICE in emergency situations.</p> <p>(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).</p> <p>(i) Emergency stationary ICE 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 ICE beyond 100 hours per calendar year.</p> <p>(ii)–(iii) [Reserved]</p> <p>(3) Emergency stationary ICE 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 this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response,</p>

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	<p>or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.</p> <p>(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:</p> <p>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;</p> <p>(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.</p> <p>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.</p> <p>(D) The power is provided only to the facility itself or to support the local transmission and distribution system.</p> <p>(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.</p> <p>(ii) [Reserved]</p> <p>(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:</p> <p>(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.</p> <p>(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records</p>

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	<p>of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.</p> <p>(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.</p> <p>(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECs for qualified emergency situations as allowed by 40 CFR 1039.665.</p>
B.45	<p><b>Equipment ID:</b> 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03</p> <p><b>§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?</b></p> <p>Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.</p> <p>(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or with Tier 2 emission standards as described in 40 CFR part 1042, appendix I, may follow the testing</p>

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	<p>procedures specified in § 60.4213, as appropriate.</p> <p>(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.</p> <p>(c) Exhaust emissions from stationary CI ICE subject to Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or Tier 2 emission standards as described in 40 CFR part 1042, appendix I, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:</p> $\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$ <p>Where:</p> <p>STD = The standard specified for that pollutant in 40 CFR part 1039 or 1042, as applicable.</p> <p>(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.</p> <p>Where:</p> <p>STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).</p> <p>Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.</p> <p>(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).</p>
B.46	<p><b>Equipment ID:</b> 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03</p> <p><b>§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30</b></p>

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<b>Condition Number</b>	<b>Conditions</b>
	<p><b>liters per cylinder?</b></p> <p>Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.</p> <p>(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.</p> <p>(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).</p> <p>(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.</p> <p>(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.</p> <p>(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:</p> $\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$ <p>Where:</p> <p><math>C_i</math> = concentration of NO<sub>x</sub> or PM at the control device inlet,</p> <p><math>C_o</math> = concentration of NO<sub>x</sub> or PM at the control device outlet, and</p> <p>R = percent reduction of NO<sub>x</sub> or PM emissions.</p> <p>(2) You must normalize the NO<sub>x</sub> or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O<sub>2</sub>) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO<sub>2</sub>) using the procedures described in paragraph (d)(3) of this section.</p> $C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{ O}_2} \quad (\text{Eq. 3})$ <p>Where:</p>

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	<p><math>C_{adj}</math> = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.</p> <p><math>C_d</math> = Measured concentration of NO<sub>x</sub> or PM, uncorrected.</p> <p>5.9 = 20.9 percent O<sub>2</sub>-15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.</p> <p>%O<sub>2</sub> = Measured O<sub>2</sub> concentration, dry basis, percent.</p> <p>(3) If pollutant concentrations are to be corrected to 15 percent O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of O<sub>2</sub> concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.</p> <p>(i) Calculate the fuel-specific F<sub>o</sub> value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:</p> $F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$ <p>Where:</p> <p>F<sub>o</sub> = Fuel factor based on the ratio of O<sub>2</sub> volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.</p> <p>0.209 = Fraction of air that is O<sub>2</sub>, percent/100.</p> <p>F<sub>d</sub> = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).</p> <p>F<sub>c</sub> = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).</p> <p>(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:</p> $X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$ <p>Where:</p> <p>X<sub>CO2</sub> = CO<sub>2</sub> correction factor, percent.</p>



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	<p>5.9 = 20.9 percent O<sub>2</sub>-15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.</p> <p>(iii) Calculate the NO<sub>x</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:</p> $C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$ <p>Where:</p> <p>C<sub>adj</sub> = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.</p> <p>C<sub>d</sub> = Measured concentration of NO<sub>x</sub> or PM, uncorrected.</p> <p>%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.</p> <p>(e) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 7 of this section:</p> $ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$ <p>Where:</p> <p>ER = Emission rate in grams per KW-hour.</p> <p>C<sub>d</sub> = Measured NO<sub>x</sub> concentration in ppm.</p> <p>1.912x10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 25 degrees Celsius.</p> <p>Q = Stack gas volumetric flow rate, in standard cubic meter per hour.</p> <p>T = Time of test run, in hours.</p> <p>KW-hour = Brake work of the engine, in KW-hour.</p> <p>(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:</p> $ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$ <p>Where:</p>

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	<p>ER = Emission rate in grams per KW-hour.</p> <p><math>C_{adj}</math> = Calculated PM concentration in grams per standard cubic meter.</p> <p>Q = Stack gas volumetric flow rate, in standard cubic meter per hour.</p> <p>T = Time of test run, in hours.</p> <p>KW-hour = Energy output of the engine, in KW.</p>
B.47	<p><b>Equipment ID:</b> 1EG01, 1EG02, 1EG03, 1FP01, 1FP02, 1FP03, 2EG01, 2EG02, 2EG03, 2FP01, 2FP02, 2FP03</p> <p><b>§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?</b></p> <p>(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.</p> <p>(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.</p> <p>(i) Name and address of the owner or operator;</p> <p>(ii) The address of the affected source;</p> <p>(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;</p> <p>(iv) Emission control equipment; and</p> <p>(v) Fuel used.</p> <p>(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.</p> <p>(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.</p> <p>(ii) Maintenance conducted on the engine.</p>

<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
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	<p>(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.</p> <p>(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.</p> <p>(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.</p> <p>(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.</p> <p>(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.</p> <p>(1) The report must contain the following information:</p> <p>(i) Company name and address where the engine is located.</p> <p>(ii) Date of the report and beginning and ending dates of the reporting period.</p> <p>(iii) Engine site rating and model year.</p> <p>(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.</p> <p>(v)–(vi) [Reserved]</p> <p>(vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.</p> <p>(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than</p>

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<b>B. LIMITATIONS, MONITORING, AND REPORTING</b>	
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	<p>March 31 of the following calendar year.</p> <p>(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (<a href="http://www.epa.gov/cdx">www.epa.gov/cdx</a>). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.</p> <p>(e) ...</p>

<b>C. NESHAP (40 CFR 61 AND 40 CFR 63)</b>	
<b>Condition Number</b>	<b>Conditions</b>
C.1	All NESHAP notifications and reports shall be sent to the Department.
C.2	All NESHAP notifications and the cover letter to periodic reports shall be sent to the United States Environmental Protection Agency (US EPA) as required by the specific subpart.
C.3	This facility has processes subject to the provisions of S.C. Regulation 61-62.63 and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, Subparts A and IIII, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks. Existing affected sources shall be in compliance with the requirements of these Subparts by the compliance date, unless otherwise noted. Any new affected sources shall comply with the requirements of these Subparts upon initial start-up unless otherwise noted.
C.4	Affected sources: All Stationary IC Engines: This facility is subject to the provisions of 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, Subparts A and NESHAP for Stationary Reciprocating Internal Combustion Engines. Existing affected sources shall comply with the applicable provisions by the compliance date specified in Subpart ZZZZ. Any new affected sources shall comply with the requirements of this Subpart upon initial start-up unless otherwise noted.

<b>D. GENERAL FACILITY WIDE</b>	
<b>Condition Number</b>	<b>Conditions</b>
D.1	The permittee shall pay permit fees to the Department in accordance with the requirements of S.C. Regulation 61-30, Environmental Protection Fees.
D.2	<p>In the event of an emergency, as defined in S.C. Regulation 61-62.1, Section II(L), the owner or operator may document an emergency situation through properly signed, contemporaneous operating logs, and other relevant evidence that verify:</p> <ol style="list-style-type: none"> <li>1. An emergency occurred, and the owner or operator can identify the cause(s) of the</li> </ol>

<b>D. GENERAL FACILITY WIDE</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>emergency;</p> <ol style="list-style-type: none"> <li>2. The permitted source was at the time the emergency occurred being properly operated;</li> <li>3. During the period of the emergency, the owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and</li> <li>4. The owner or operator gave a verbal notification of the emergency to the Department within twenty-four (24) hours of the time when emission limitations were exceeded, followed by a written report within thirty (30) days. The written report shall include, at a minimum, the information required by S.C. Regulation 61-62.1, Section II(J)(1)(c)(i) through (J)(1)(c)(viii). The written report shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.</li> </ol> <p>This provision is in addition to any emergency or upset provision contained in any applicable requirement.</p>
D.3	<p>(S.C. Regulation 61-62.1, Section II(O)) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following:</p> <ol style="list-style-type: none"> <li>1. Enter the facility where emissions-related activity is conducted, or where records must be kept under the conditions of the permit.</li> <li>2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.</li> <li>3. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.</li> <li>4. As authorized by the Federal Clean Air Act and/or the S.C. Pollution Control Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.</li> </ol>
D.4	<p>(S.C. Regulation 61-62.1, Section II(J)(1)(a)) No applicable law, regulation, or standard will be contravened.</p>
D.5	<p>(S.C. Regulation 61-62.1, Section II(J)(1)(e)) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this regulation or with the terms of any approval to construct, or who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to enforcement action.</p>
D.6	<p>The owner or operator shall comply with S.C. Regulation 61-62.6, Control of Fugitive Particulate Matter, Section III Control of Fugitive Particulate Matter Statewide.</p>

<b>E. EMISSIONS INVENTORY REPORTS</b>	
<b>Condition Number</b>	<b>Conditions</b>
E.1	<p>All newly permitted and constructed Title V sources and/or Non-attainment Area Sources shall complete and submit an emissions inventory consistent with the schedule approved pursuant to S.C. Regulation 61-62.1, Section III. These Emissions Inventory Reports shall be submitted to the Department.</p> <p>This requirement notwithstanding, an emissions inventory may be required at any time in order to determine the compliance status of any facility.</p>

<b>F. GENERAL RECORD KEEPING AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
F.1	(S.C. Regulation 61-62.1, Section II(J)(1)(g)) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least five (5) years from the date the record was generated and shall be made available to a Department representative upon request.
F.2	The owner or operator shall submit reports required in this permit in a timely manner and according to the reporting schedule established through the Department's approved electronic permitting system.
F.3	All reports and notifications required under this permit shall be submitted to the Department.
F.4	(S.C. Regulation 61-62.1, Section II(A)(3)) The owner or operator shall submit written notification to the Department of the date construction is commenced, postmarked within thirty (30) days after such date.
F.5	<p>(S.C. Regulation 61-62.1, Section II(J)(1)(c)) For sources not required to have continuous emission monitors, any malfunction of air pollution control equipment or system, process upset, or other equipment failure which results in discharges of air contaminants lasting for one (1) hour or more and which are greater than those discharges described for normal operation in the permit application, shall be reported to the Department within twenty-four (24) hours after the beginning of the occurrence and a written report shall be submitted to the Department within thirty (30) days. The written report shall include, at a minimum, the following:</p> <ol style="list-style-type: none"> <li>1. The identity of the stack and/or emission point where the excess emissions occurred;</li> <li>2. The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions;</li> </ol>

<b>F. GENERAL RECORD KEEPING AND REPORTING</b>	
<b>Condition Number</b>	<b>Conditions</b>
	<p>3. The time and duration of excess emissions;</p> <p>4. The identity of the equipment causing the excess emissions;</p> <p>5. The nature and cause of such excess emissions;</p> <p>6. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction;</p> <p>7. The steps taken to limit the excess emissions; and,</p> <p>8. Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions.</p> <p>The initial twenty-four (24) hour notification should be made to the Department's local Environmental Affairs Regional Office.</p> <p>The written report should be sent to the Department.</p>

<b>G. PERMIT EXPIRATION AND EXTENSION</b>	
<b>Condition Number</b>	<b>Conditions</b>
G.1	<p>(S.C. Regulation 61-62.1, Section II(A)(4) and (5) and S.C. Regulation 61-62.1, Section II(J)(1)(f)) Approval to construct shall become invalid if construction:</p> <ul style="list-style-type: none"> <li>a. Is not commenced within eighteen (18) months after receipt of such approval;</li> <li>b. Is discontinued for a period of eighteen (18) months or more; or</li> <li>c. Is not completed within a reasonable time as deemed by the Department.</li> </ul> <p>The Department may extend the construction permit for an additional eighteen (18) month period upon a satisfactory showing that an extension is justified. This request must be made prior to the permit expiration.</p> <p>This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within eighteen (18) months of the projected and approved commencement date.</p>

<b>H. PERMIT TO OPERATE</b>	
<b>Condition Number</b>	<b>Conditions</b>
H.1	(S.C. Regulation 61-62.1, Section II(F)(3)) When a Department issued construction permit includes engineering and/or construction specifications, the owner or operator or professional engineer in charge of the project shall certify that, to the best of his/her knowledge and belief and as a result of periodic observation during construction, the construction under application has been completed in accordance with the specifications agreed upon in the construction permit issued by the Department. If construction is certified as provided above, the owner or operator may operate the source in compliance with the terms and conditions of the construction permit until the operating permit is issued by the Department. If construction is not built as specified in the permit application and associated construction permit(s), the owner or operator must submit to the Department a complete description of modifications that are at variance with the documentation of the construction permitting determination prior to commencing operation. Construction variances that would trigger additional requirements that have not been addressed prior to start of operation shall be considered construction without a permit.
H.2	(S.C. Regulation 61-62.1, Section II(F)(1)) The owner or operator shall submit written notification to the Department of the actual date of initial startup of each new or altered source, postmarked within fifteen (15) days after such date. Any source that is required to obtain an air quality construction permit issued by the Department must obtain an operating permit when the new or altered source is placed into operation and shall comply with the requirements of this section.
H.3	<p>(S.C. Regulation 61-62.1, Section II(F)(4)(b)) The owner or operator shall submit a written request to the Department for a new or revised operating permit to cover any new or altered source postmarked within fifteen (15) days after the actual date of initial startup of each new or altered source.</p> <p>(S.C. Regulation 61-62.1, Section II(F)(4)(c)) The written request for a new or revised operating permit must include, at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>i. A list of sources that were placed into operation; and</li> <li>ii. The actual date of initial startup of each new or altered source.</li> </ul> <p>(S.C. Regulation 61-62.70.5(a)) The owner or operator shall submit a timely and complete Part 70 permit application within twelve (12) months of startup.</p> <p>This Title V application submittal requirement applies to facilities unless they obtain an effective Conditional Major Operating Permit within twelve (12) months of startup of this permit activity. A request for a Conditional Major Operating Permit should address the requirements specified in S.C. Regulation 61-62.1.</p>



<b>I. AMBIENT AIR STANDARDS</b>	
<b>Condition Number</b>	<b>Conditions</b>
I.1	<p>Air dispersion modeling (or other method) has previously demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.</p> <p>The owner or operator shall maintain this facility at or below the emission rates used in the most recent air dispersion modeling (or other method) demonstration submitted to and approved by the Department, not to exceed the pollutant limitations of this permit. Should the facility wish to increase the emission rates used in the demonstration, not to exceed the pollutant limitations in the body of this permit, it may do so by submitting a new demonstration for approval. This condition along with the referenced modeling demonstration will also serve to meet the intent of S.C. Regulation 61-62.5, Standard No. 8, Section II(D). This is a State Only enforceable requirement.</p>