



ARKANSAS  
Department of Environmental Quality

February 29, 2016

Julius Holmes  
Environmental Coordinator  
Cooper Tire & Rubber Company  
3500 Washington Road  
Texarkana, AR 71854

Dear Mr. Holmes:

The enclosed Permit No. 0957-AOP-R13 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 9/16/2015.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 0957-AOP-R13 for the construction and operation of equipment at Cooper Tire & Rubber Company shall be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

A handwritten signature in black ink, appearing to read "Stuart Spencer", is written over a horizontal line.

Stuart Spencer  
Associate Director, Office of Air Quality

Enclosure: Final Permit

# ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 0957-AOP-R13

IS ISSUED TO:

Cooper Tire & Rubber Company  
3500 East Washington Road  
Texarkana, AR 71854  
Miller County  
AFIN: 46-00005

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

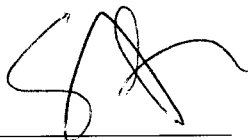
February 29, 2016

AND

February 28, 2021

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:



Stuart Spencer  
Associate Director, Office of Air Quality

February 29, 2016

Date

Cooper Tire & Rubber Company  
Permit #: 0957-AOP-R13  
AFIN: 46-00005

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## Appendix A

40 C.F.R. § 60, NSPS, Subpart BBB – *Standards of Performance for the Rubber Tire Manufacturing Industry*

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#### Appendix B

40 C.F.R. § 63, Subpart XXXX – *National Emissions Standards for Hazardous Air Pollutants (NESHAP) – Rubber Tire Manufacturing*

#### Appendix C

40 C.F.R. § 60, Subpart Dc – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

#### Appendix D

40 C.F.R. § 63, Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

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#### List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO <sub>x</sub>	Nitrogen Oxide
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO <sub>2</sub>	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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## **SECTION I: FACILITY INFORMATION**

PERMITTEE: Cooper Tire & Rubber Company

AFIN: 46-00005

PERMIT NUMBER: 0957-AOP-R13

FACILITY ADDRESS: 3500 East Washington Road  
Texarkana, AR 71854

MAILING ADDRESS: 3500 Washington Road  
Texarkana, AR 71854

COUNTY: Miller County

CONTACT NAME: Julius Holmes

CONTACT POSITION: Environmental Coordinator

TELEPHONE NUMBER: (870) 779-4260

REVIEWING ENGINEER: Charles Hurt, P.E.

UTM North South (Y): Zone 15: 3698633.61 m

UTM East West (X): Zone 15: 406681.30 m

## **SECTION II: INTRODUCTION**

### **Summary of Permit Activity**

Cooper Tire & Rubber Company (AFIN: 46-00005) operates a tire manufacturing facility located at 3500 East Washington Road, Texarkana, AR 71854. Cooper submitted applications to renew the Title V permit with modifications. The permit modifications included equipment replacement and modifications, permitting existing fire pump engines (SN-140 and SN-141) and applicable RICE MACT requirements, and adding existing cooling towers to the Insignificant Activities List. Overall, permitted emission limits increased by 0.5 tpy PM/PM<sub>10</sub>, 0.5 tpy SO<sub>2</sub>, 1.4 tpy CO, 5.8 tpy NO<sub>x</sub>, and 0.02 tpy HAP.

Cooper proposed to replace five Tire Uniformity Machines within the source grouping GR-05 and one Green Tire Spray booth within the source grouping GR-04. No increases were proposed to the currently permitted throughputs for either GR-04 or GR-05.

In addition the replacements above, Cooper proposed to modify two of the rubber mixing systems in the source grouping GR-01. The modifications involved replacing the mill with a sheeter for Mixer #1 (SN-01) and modifying Mixer #7 (SN-06) to increase its capacity. As a result of the increased capacity to Mixer #7 the previous permit limit for the silica ingredient was increase from 4,000 tpy to 7,000 tpy.

### **Process Description**

Cooper receives (GR-09) dry materials, such as carbon black, and liquid raw materials in both bulk and packaged forms. These materials are stored either in the plant or in the bulk storage facilities at the south end of the plant (SN-59). Raw materials which include dry ingredients, carbon black, natural rubber, synthetic rubber, and process oils, are formulated and mixed in nine mixers (GR-01). Dry ingredients, other than carbon black, are individually weighed to specified formulations and batched in plastic bags in the centralized compounding area (SN-07) and then transported to the mixers.

The rubber mixing process includes two-steps: master mixing and final mixing. The master mixers are equipped with extruders that produce small rubber pellets. The pellets are coated with a de-tackifier and cooled with air (GR-02). Later, the pellets are transported to the final mixer with additional ingredients for final mixing.

Carbon black and other dry ingredients generate dust at the opening to the mixer throat. Individual roof mounted dust collectors are ducted to the mixers and control dust exiting the mixers.

After the rubber is final mixed and layered into sheet form onto steel skids, it is transported to cold feed extruders or to rubber mills (SN-108). The rubber is broken down further on the mills for presentation to various calenders (SN-110) and other extruders (SN-109).

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The four-roll calender laminates fabric between thin sheets of rubber for tire belt and body ply production. The fabric material has been pre-treated with a latex dip solution to promote adhesion between the rubber and fabric.

Some of the calendered material is routed to the pre-cure treatment system. The pre-cure process is in line with the calender (SN-56). The pre-cure system uses two electron beam accelerators to irradiate tire components and initiate the rubber curing process. Electrons are accelerated by means of electromagnetic fields and are directed to uncured tire components. Electrons moving toward the tire components encounter oxygen molecules in the air. When the electrons strike the oxygen molecules, some of the molecules are split into single oxygen atoms. The single oxygen atoms will re-attach to existing diatomic molecules to form ozone ( $O_3$ ) if other single oxygen atoms are unavailable.

Creeled steel material feeds into a separate calender. After calendering, the material is rolled up on steel shells and transported to cord storage areas.

The twin two-roll calender laminates thin sheets of rubber for inner liner and other miscellaneous tire components, which are transported to the Tire Building Department.

The fabric cutters processes rolls of calendered tire belt and ply material into narrower rolls of material cut at a specified angle, spliced, and wound up on reels. These reels are then transported to the Tire Building Department.

The tread tubers extrude tread rubber, which is then cut to specified lengths and marked with an identifying code at the tread markers (GR-08). After the treads are cut to length, the exposed ends are sprayed with a solvent-based rubber cement by an automatic tread end cementer (GR-03). Cement is applied manually by brush when the automatic cementers are not operating. Next, the treads are placed in trays on a tread truck and transported to the Tire Building Department.

Sidewall lines extrude black and white sidewall components. The sidewall package is rolled up on reels and is transported to the Tire Building Department.

Bead room equipment processes wire and extruded rubber into circular tire beads. The beads are then transported to the Tire Building Department.

All components from the mill room, bead room, and fabric preparation area are manually brought to the Tire Building Department for assembly. The components are assembled in specified sequence on tire building machines (SN-67).

Most radial tires are assembled in two stages. The radial "carcass" is assembled on a 1st stage tire-building machine. The carcass is then transported to the 2nd stage tire building machines. After completing the 2nd stage construction, the "green" tires are transported to the radial green tire spray booths. Some tires are assembled on a single machine.



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All green tires are routed to spray booths. The green tire receives a coating of water-based lubricant on the inside and outside surfaces of the tire (GR-04). The sprayed tires are then sorted in portable racks of common tires and are transported to green tire storage areas.

Green tires are moved from storage areas to the curing presses where they undergo controlled temperature and pressure vulcanization (curing) (SN-111).

Curing bladders are treated with a lubricant prior to installation in the curing process. In addition, some curing molds are lubricated between curing cycles. The curing molds periodically become fouled and require cleaning in a mold cleaner (SN-95 and SN-112).

Cured tires are inspected, and the white sidewall (WSW) tires are routed to various automatic WSW buffers (GR-06). WSW tires must be buffed to remove the black rubber veneer coating over the sidewall. The dust from this operation is collected by wet-type dust collectors.

After WSW buffing, these tires merge with the black sidewall (BSW) tires and are routed to inspectors who visually inspect for defects, make necessary repairs (SN-68), and then route the tires to various sorting conveyors. Some tires are routed to the Tire Reclass Area (SN-106).

After inspection, the tires are sent to the uniformity machines. If specified uniformity force values are not met, the tire shoulder and/or tread area is ground (GR-05). The grinding "dust" is captured by cyclone type dust collectors, one for each uniformity machine. Ground tires are further cleaned at the Uniformity Grind Cleaning Area (SN-105).

After uniformity testing, the tires are sent to the WSW protective painters (SN-33 through SN-36 and SN-131) where the white sidewalls are painted with a water-based protective paint, dried with radiant heaters on a drying conveyor, and routed to the automatic balancers where they are checked for balance.

After leaving the automatic balancers, tires are conveyed to the sort and label area where they are routed to various sort lines, labeled, and loaded onto cart pallets. The pallets are stretch wrapped and then sent to the warehouse.

Cooper also operates three boilers that provide building heat and steam for the processes (SN-53, SN-55, and SN-89). The boilers are equipped to burn either natural gas or No. 2 Low Sulfur Fuel Oil with natural gas being the primary fuel.

### **Regulations**

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective September 13, 2014

Regulations
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective November 18, 2012
40 C.F.R. § 60, NSPS, Subpart BBB – <i>Standards of Performance for the Rubber Tire Manufacturing Industry</i>
40 C.F.R. § 63, Subpart XXXX – <i>National Emissions Standards for Hazardous Air Pollutants (NESHAP), – Rubber Tire Manufacturing</i>
40 C.F.R. § 60, Subpart Dc – <i>Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units</i>
40 C.F.R. § 63, Subpart ZZZZ – <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>

### Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	23.3	48.2
		PM <sub>10</sub>	23.3	48.2
		SO <sub>2</sub>	64.9	125.8
		VOC	181.5	249.0
		CO	31.0	86.0
		NO <sub>x</sub>	54.3	114.0
		Lead Compounds	8.07E-03	4.45E-02
Total Allowable HAP Emissions (included in VOC or PM <sub>10</sub> except for Methylene Chloride and Tetrachloroethene)		4-Methyl-2-Pentanone (MIBK)	4.04	14.77
		Acrolein	5.19E-02	0.17
		Arsenic Compounds	6.83E-04	1.74E-03
		Beryllium Compounds	5.13E-04	1.24E-03
		Cadmium Compounds	1.01E-03	2.97E-03
		Hexachlorobutadiene	0.03	0.10
		Mercury Compounds	5.12E-04	1.36E-03
		Methylene Chloride	N/A	5.35
		Selenium Compounds	2.56E-03	6.17E-03
		Tetrachloroethene	N/A	1.46
		Xylene	4.03	14.77
		HAPs	N/A	73.53
GR-01	Mixing (SN-01 through SN-06, SN-51, SN-133, and SN-134) Baghouse	PM	1.2	4.5
		PM <sub>10</sub>	1.2	4.5
		VOC	25.3	*
		Lead Compounds	1.00E-05	3.8E-05
		4-Methyl-2-Pentanone (MIBK)	1.84	6.74
		Cadmium Compounds	8.00E-06	2.80E-05
		Methylene Chloride	N/A	0.55
		Tetrachloroethene	N/A	0.90

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 AFIN: 46-00005

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Xylene	0.1	0.36
		HAPs	N/A	12.26
GR-02	Pellet Coolers (SN-40 and SN 61) Fabric Filters	PM	1.2	4.4
		PM <sub>10</sub>	1.2	4.4
GR-03	Tread End Cementers (SN-08, SN-09, SN-115)	PM	0.6	1.3
		PM <sub>10</sub>	0.6	1.3
		VOC	69.2	*
GR-04	Radial Green Tire Spray Booths (SN-14 through SN-19, SN-124, SN-135)	PM	6.3	12.8
		PM <sub>10</sub>	6.3	12.8
		VOC	18.5	*
GR-05	Tire Uniformity Machines & Cleaning Area (SN-20 through SN-25, SN-27, SN-28, SN-43 through SN-46, SN-78, SN-79, SN-82 through SN-86, SN-105, SN-138, SN-120, SN-122, SN-125, SN-126, SN-127, SN-137)	PM	2.4	4.5
		PM <sub>10</sub>	2.4	4.5
		VOC	0.9	*
		Lead Compounds	8.11E-04	1.98E-02
		Cadmium Compounds	3.90E-05	7.80E-05
		Methylene Chloride	N/A	0.04
		Xylene	2.63E-03	0.07
GR-06	White Sidewall Buffers (SN-29 through SN-32, SN-47, SN-48, SN-69 through SN-71, SN-80, SN-96 through SN-103)	HAP	N/A	0.84
		PM	2.9	5.8
		PM <sub>10</sub>	2.9	5.8
		VOC	5.7	*
		Lead Compounds	5.52E-03	0.02
		Cadmium Compounds	2.62E-04	5.33E-04
		Methylene Chloride	N/A	0.02
GR-08	Tread Markers (SN-66, SN-116, SN-117, SN-130)	Xylene	0.02	0.04
		HAP	N/A	0.78
SN-07	Centralized Compounding	VOC	2.4	*
		HAPs	N/A	1.10
SN-53	Boiler #1 36.0 MMBtu/hr Natural Gas or Fuel Oil Fired	PM	0.1	0.3
		PM <sub>10</sub>	0.1	0.3
		PM	0.6	1.9
		PM <sub>10</sub>	0.6	1.9
		SO <sub>2</sub>	11.3	29.6
		VOC	0.2	0.9*
		CO	2.9	12.7
		NO <sub>x</sub>	5.3	22.4
		Lead Compounds**	1.54E-03	3.93E-03
		Arsenic Compounds**	6.83E-04	1.74E-03
		Beryllium Compounds**	5.13E-04	1.24E-03
		Cadmium Compounds**	5.12E-04	1.76E-03
		Mercury Compounds**	5.12E-04	1.36E-03
		Selenium Compounds**	2.56E-03	6.17E-03

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Xylene**	1.33E-04	3.20E-04
		HAPs**	N/A	1.74
SN-55	Boiler #3 72.0 MMBtu/hr Natural Gas or Fuel Oil Fired	PM	1.1	3.7
		PM <sub>10</sub>	1.1	3.7
		SO <sub>2</sub>	22.6	59.2
		VOC	0.4	1.8*
		CO	5.8	25.4
		NO <sub>x</sub>	10.6	44.8
		Lead Compounds**	1.54E-03	3.93E-03
		Arsenic Compounds**	6.83E-04	1.74E-03
		Beryllium Compounds**	5.13E-04	1.24E-03
		Cadmium Compounds**	5.12E-04	1.76E-03
		Mercury Compounds**	5.12E-04	1.36E-03
		Selenium Compounds**	2.56E-03	6.17E-03
		Xylene**	1.33E-04	3.20E-04
		HAPs**	N/A	1.74
GR-09	Carbon Black Unloading/ Distribution System (SN-59 and SN-60)	PM	1.0	0.4***
		PM <sub>10</sub>	1.0	0.4***
SN-67	Tire Building Area	VOC	3.8	*
SN-68 and SN-106	Tire Inspection/Repair Area	VOC	1.0	*
		HAPs	N/A	0.03
SN-89	Boiler #4 99.7 MMBtu/hr Natural Gas or Fuel Oil Fired	PM	4.2	8.1
		PM <sub>10</sub>	4.2	8.1
		SO <sub>2</sub>	29.4	36.5
		VOC	1.0	4.2*
		CO	17.3	46.5
		NO <sub>x</sub>	15.5	41.0
		Lead Compounds**	1.54E-03	3.93E-03
		Arsenic Compounds**	6.83E-04	1.74E-03
		Beryllium Compounds**	5.13E-04	1.24E-03
		Cadmium Compounds**	5.12E-04	1.76E-03
		Mercury Compounds**	5.12E-04	1.36E-03
		Selenium Compounds**	2.56E-03	6.17E-03
		Xylene**	1.33E-04	3.20E-04
		HAPs**	N/A	1.74
SN-108	Rubber Milling	VOC	23.8	*
		4-Methyl-2-Pentanone (MIBK)	0.67	2.45
		Methylene Chloride	N/A	0.20
		Tetrachloroethene	N/A	1.30E-02
		Xylene	0.05	0.17
		HAP	N/A	4.40
SN-109	Rubber Extruding	VOC	1.2	*
		4-Methyl-2-Pentanone (MIBK)	0.33	1.22

Cooper Tire & Rubber Company  
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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Acrolein	0.02	0.07
		Methylene Chloride	N/A	2.90
		Tetrachloroethene	N/A	0.50
		Xylene	0.04	0.13
		HAPs	N/A	8.44
SN-110	Rubber Calendering	VOC	1.4	*
		4-Methyl-2-Pentanone (MIBK)	0.02	0.06
		Acrolein	1.88E-03	6.88E-03
		Methylene Chloride	N/A	4.15E-03
		Xylene	0.02	0.06
		HAPs	N/A	1.01
SN-111	Tire Curing	VOC	20.3	*
		4-Methyl-2-Pentanone (MIBK)	1.18	4.30
		Acrolein	0.03	0.09
		Hexachlorobutadiene	0.03	0.10
		Methylene Chloride	N/A	1.64
		Tetrachloroethene	N/A	0.05
		Xylene	3.78	13.85
		HAPs	N/A	41.49
SN-121	Miscellaneous Plantwide Use of Volatile Materials	VOC	4.5	*
		Xylene	0.02	0.09
		HAPs	N/A	1.35
GR-10	Emergency Fire Pumps SN-140 and SN-141	PM	1.7	0.5
		PM <sub>10</sub>	1.7	0.5
		SO <sub>2</sub>	1.6	0.5
		VOC	1.9	0.5
		CO	5.0	1.4
		NO <sub>x</sub>	22.9	5.8
		HAPs	N/A	0.02

\* Included in Plantwide VOC limit of 249.0 tpy

\*\* Total emissions for all three boilers (SN-53, SN-55, and SN-89)

\*\*\* Total annual emission limit for SN-59 and SN-60

### **SECTION III: PERMIT HISTORY**

Permit 957-A was issued on September 7, 1989. This was the first air permit issued to the facility. The facility has been in operation since 1964.

Permit 957-AR-1 was issued to Cooper on April 9, 1990. This modification established emission values for VOC in the buffer painters (SN-33 through SN-39, SN-49, and SN-50) and increased the VOC emissions for the outside paint per tire in the Green Tire Spray Booths (SN-14, SN-18, and SN 19).

Permit 957-AR-2 was issued to Cooper on July 15, 1991. This modification replaced the existing dust collector for Mixer #1 (SN-01) with a Jet-Aire bag filter. Cooper also added eight additional holding bins to support an increase in operating rates for the Centralized Compounding System (SN-07), a pre-cure system (SN-56a and SN-56b), two 30,000 gallon No. 2 fuel oil tanks (SN-57 and SN-58), and nineteen previously unpermitted, but installed, sources (SN-59 through SN-77). This permit removed the No. 4, No. 5, and No. 6 Tuber Cementers (SN-10 through SN-12), the No. 1 Bias Green Tire Spray Booth, and a 12,000 barrel tank (SN-41). Cooper recalculated, using new data, the emission rates and throughput rates to give a net result of a 1,111 TPY reduction in VOC and a 13.6 TPY increase in particulates.

Permit 957-AR-3 was issued on February 25, 1992. This modification relocated SN-44 through SN-50, replaced the No. 1 Tread End Cementer (SN-08) with a like-kind replacement that is subject to New Source Performance Standard Subpart BBB, installed an additional white sidewall buffer protective painter exhaust/filter system, and replaced the No. 5 Mixer Dust Collector. This modification also installed two new tire uniformity machines (SN-78 and SN-79), installed a new sidewall buffer (SN-80), installed a new buffer protective painter (SN-81), and replaced the existing white sidewall dust collectors (SN-47 and SN-48) with a newer larger dust collector. Total increases were 0.9 TPY of particulates and 0.3 TPY of VOC.

Permit 957-AR-4 was issued on April 27, 1994. This modification changed the opacity limits for SN-61, SN-63, SN-64A, SN-64B, SN-64C, SN-69, SN-70, and SN-71. It also added dust blow-offs for all of the tire uniformity machines (SN-20 through SN-28, SN-43 through SN-46, SN-78, and SN-79). The SO<sub>2</sub> emissions from the boilers while using No. 2 fuel oil were increased to rectify an error made in 957-A. This modification added two insignificant cementing operations, replaced the No. 2 Tread End Cementer (SN-09) with a like kind, and exchanged the source numbers on SN-18 and SN-19. Permitted limits were increased on SN-14 through SN-28, SN 40, SN-78 and SN-79. Three new tire uniformity machines (SN-82, SN-83, and SN-84) were added. A like-kind replacement of the No. 1 and No. 2 tread markers (SN-65 and SN-66) was performed.

Permit 957-AR-5 was issued to Cooper on August 16, 1994. This modification allowed for installation of four new Tire Uniformity Machines (SN-85 through SN-88), replacement of an exhaust fan on the No. 7 pellet cooler (SN-52), replacement of the exhaust fan on the 4 Roll Calender Oven (SN-64B), renovations to the exhaust system from existing laboratory equipment,

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and minor corrections to 957-AR-4. This resulted in an increase of 2.4 TPY of particulates, 2.6 TPY of SO<sub>2</sub>, 3.5 TPY of VOC, 0.9 TPY of CO, and a decrease of 0.5 TPY of NO<sub>x</sub>.

Permit 957-AR-6, issued on October 17, 1994, allowed the installation of a 90,000 pound per hour steam generating boiler (SN-89). Heat input capacity of the boiler is 119 MMBTU/hr and, therefore, the unit is subject to 40 C.F.R. 60, Subpart Db. Natural gas is the primary fuel for the boiler, however No. 2 fuel oil will be used as an alternate and emergency fuel.

Permit 957-AR-7 was a minor modification issued on May 2, 1995. This modification allowed for replacement of rotors in SN-01 and SN-04, moving the No. 3 and No. 5 Green Tire Spray Booths (SN-16 and SN-19), and replacing the No. 1 and No. 4 Pellet Coolers (SN-40 and SN 61). It also added three new 10,000 gallons storage tanks (SN-90), a mobile vacuum unit (SN 91), the No. 1 and No. 2 Bladder Spray Booths (SN-92 and SN-93), a Mold Lube (SN 94), and a Mold Cleaner (SN-95). Total permitted increases resulting from 957-AR-7 were 1.6 tons per year of PM<sub>10</sub> and 2.8 tons per year of VOCs.

Permit 957-AR-8, issued on November 27, 1995, allowed the replacement of the existing radial green tire spray booth with a new, similar radial green tire spray booth. Cooper Tire reduced the bead dip usage at the bead dip tank and reduced permitted limits on bead dip usage in this modification. Finally, Cooper removed Boiler No. 2 (SN-54) and the emissions associated with the boiler. In addition, this permit assigned emissions limits in pounds per hour and tons per year to sources that were previously permitted in gr/tire/month which is the means of measuring compliance with the applicable NSPS Subpart. A Specific Condition to address NSPS compliance was added to the permit along with other conditions to ensure compliance with proposed emissions rates. Total permitted decreases resulting from 957-AR-8 were 0.2 tons per year PM<sub>10</sub>, 135.1 tons per year VOC, 27.5 tons per year SO<sub>2</sub>, 22.3 tons per year NO<sub>x</sub>, and 5.7 tons per year CO.

Permit 957-AR-9 was issued to Cooper on September 20, 1996. This modification allowed for relocation and replacement of the dust collectors on the Tire Uniformity Machines and three White Sidewall Buffers (SN-47, SN-48, and SN-80). It allowed for installation of nine and removed seven White Sidewall Buffers. It also allowed for installation of four and removed ten Sidewall Protective Painters. It allowed installation of a new Grind Cleaning Area (SN-105), fans and dust filter in the Inspection Area (SN-68), and a new dust collector in the Tire Reclass Area (SN-106). It also allowed for replacement of a Radial Green Tire Spray Booth (SN-17) with a new NSPS subject model. Finally, this permit updated emission factors.

Permit 957-AOP-R0, which was the first operating permit for Cooper under Regulation #26, was issued on May 17, 1999. This permit allowed for installation of a new tread line to replace an existing tread line to allow for a higher production rate, while lowering VOC emissions from the old tread line and also replacement of two of the sidewall component lines. Other emissions changed by using updated emission factors and increasing throughput limits.

Permit 957-AOP-R1, issued on January 30, 2001, was a modification which allowed for the installation of a new tread line, the #2CF Tread Line and Tread End Cementer (SN-118 grouped

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in GR-03), the replacement of two existing radial green tire spray booths with new booths (GR-04), the installation of two new tire uniformity machines (GR 05), the installation of a number of new tire curing presses (SN-111), a change in emission factors for cements and solvents, a change in solvent usage amount, and an increase in rubber throughput associated with a change in the hours of operation at the facility.

The increases in emissions from this modification were because of the addition of new equipment, changes in solvents through approved unrelated minor modifications, and an increase in rubber throughput because of a change in the hours of operation at this facility. The rubber throughput increased from 166,347 tons per year to 262,800 tons per year. The throughput was established in Permit 957-AOP-R0 for existing equipment and was not a New Source Review permit limit. This modification allowed the facility to operate continuously. The change in hours of operation resulted in an increase of VOC emissions by 74 tons per year. This facility has never had production limits for New Source Review purposes. The plant production capacity was limited by the number of curing presses in the plant. The 13 press expansion did result in an increase in VOC emission of 32.6 tons per year. Therefore, the facility modification was not subject to PSD regulations.

Permit 957-AOP-R2, issued on February 15, 2002, was a minor modification which allowed the facility to improve the particulate dust collection and ventilation systems for Mixing (GR-01) and Pellet Coolers (GR-02). The improvements were made by re-sizing the ductwork and hoods, increasing air flow for the existing dust collectors on Mixer #7 (SN-51) and Pellet Coolers #1, #4, and #7 (SN-40, SN-52, and SN-61, respectively), and installing one additional dust collector at each of the Mixers #1 through #6 (SN-01 through SN-06). The changes to the particulate dust collection and ventilation systems did not result in an increase of permitted emissions.

Permit 957-AOP-R3, issued on September 10, 2003, was a minor modification that increased the permitted emission rates of VOC from SN-109. The increase was attributed to the use of a new rubber compound, known as Compound 6a, which was used in producing silica-based tire tread components. This modification resulted in an emissions increase of 7.7 tpy of VOC.

Permit 957-AOP-R4, issued on February 1, 2006, included the Title V renewal, a permit modification to create a plantwide VOC emission limit of 249 tpy, a plantwide PM/PM<sub>10</sub> limit of 92 tpy based on hourly maximum emissions of 19.3 lb/hr, plantwide limits for HAPs, a modification to add Mixer #8 (SN-123) to GR-01, minor modifications to allow the installation of 16 additional curing presses to the Tire Curing Operation (SN-111) (however only 15 were installed), a minor modification to allow the addition of one uniformity optimizer (TUO, SN-122) to the Tire Uniformity Machines and Cleaning Area (GR-05), and minor modifications to allow the replacement of 25 curing ovens at SN-111.

The annual permitted emissions increased by 40.7 tons of PM/PM<sub>10</sub> and decreased by 227 tons of VOC due to the plantwide limits for VOC and PM. The annual permitted NO<sub>x</sub> emissions decreased by 10 tons due to the removal of GR-07. Combined HAP emissions decreased more than 40 tons per year due to Cooper switching from HAP containing solvents and paints to HAP-free materials.



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Permit 957-AOP-R5, issued on April 26, 2006, was a modification that allowed Cooper to replace 40 old curing presses contained in the Tire Curing Operation, SN-111, with 40 newer presses and to install 2 new extruders in the Rubber Extrusion Operations at SN-109. The curing press replacement and the new extruders did not result in an increase in permitted emissions. In addition to the requested modifications, the plantwide emission rates limited through Plantwide 15 were corrected to match the numbers provided in the application for Permit 957-AOP-R4.

Permit 957-AOP-R6, issued on June 4, 2007, was a revision to Cooper's air permit which incorporated two minor modifications and a significant modification at the facility. In addition, Cooper requested several changes to emissions limits and throughputs during the comment period. The changes resulted in a lower fuel oil through put, thus lowering emissions and the addition of source specific throughput limits. The changes during the comment period did not relax any existing recordkeeping or throughput requirements.

The first minor modification allowed the replacement the existing fabric filter dust collector with a new wet scrubber at the Pellet Coolers (GR-02). The proposed modification has potential emissions of 5.3 tpy of PM<sub>10</sub> which was below the minor modification threshold limit.

The second minor modification allowed the installation of an additional spray booth (SN-122) in the Green Tire Spray Booth Operations at GR-04. This booth is primarily utilized for light duty and sport truck tires. This booth also acts as a back-up to the other booths when they are shut down for preventive maintenance. This modification has potential emissions of 7.35 tpy of VOC and 2.3 tpy of PM/PM<sub>10</sub>; however, there is not an increase in previously permitted VOC or PM/PM<sub>10</sub> emissions due to this modification.

Lastly, the significant modification allowed Cooper to de-rate Boiler #4 (SN-89). The boiler was previously permitted as having a maximum heat input capacity of 118 MMBtu/hr; however, the actual heat rating is 108 MMBtu/hr while burning natural gas and 103.7 MMBtu/hr while burning low sulfur fuel oil. With this modification Cooper reduced the heat input rating from 103.7 MMBTU/hr to 95 MMBtu/hr while burning Fuel Oil No. 2. The boiler retained the capacity of 108 MMBtu/hr for burning natural gas. The oil train valve trim was modified to limit the flow of fuel oil to the burner. The oil flow meter and air flow control was re-calibrated to the new pressure settings and control valve specifications. The boiler is subject to portions of 40 C.F.R. Subpart Db when firing natural gas and subject to Subpart Dc when firing No. 2 Fuel Oil.

As a result of the described modifications, updated AP-42 emission factors and calculation corrections made during the comment period, the overall annual permitted emissions decreased 3.2 tons of SO<sub>2</sub> and 38 tons PM/PM<sub>10</sub> and increased 6.4 tons of CO and 9.9 of NO<sub>x</sub>.

Permit No. 957-AOP-R7, issued on February 20, 2008, reduced the heat input rating on Boiler #4 (SN-89) from 108 MMBTU/hr to less than 100 MMBTU/hr when burning natural gas as fuel. Cooper de-rated the boiler to a total capacity of less than 100 MMBtu/hr for all fuels such that Cooper will no longer be subject to the standards of 40 C.F.R. § 60, Subpart Db.

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The Rubber Milling (SN-108) and Rubber Calendering (SN-110) were classified as sources in the permit as opposed to insignificant activities. The sources were re-classified based on the amount of emissions which could potentially result from these activities.

As a result of the Boiler de-rating modification, the overall annual permitted emissions decreased by 0.3 tons of PM/PM<sub>10</sub>, 1.7 tons of SO<sub>2</sub>, 1.7 tons of CO, and 1.6 of NO<sub>x</sub>. As a result of the re-classification of SN-108 and SN-110 as significant sources the overall HAP emissions increased by 5.76 tons per year.

Permit No. 957-AOP-R8 was issued on October 1, 2009. Cooper submitted two minor modification requests. The following changes were requested:

#### Modification #1

Cooper requested permission to install the equipment listed below.

Group Number	Source Number	Quantity	Description
04	124	1	Radial Green Tire Spray Booth
05	125-127	3	Tire Uniformity Optimizers
06	128, 129	2	White Sidewall Buffers
08	130	1 set	#2 Cold Feed Tread Markers
-	68,106	3	Tire Inspection / Repair Machines
-	109	10	Additional & Replacement Extrusion Lines in Rubber Extruding
-	111	29	Additional & Replacement Curing Presses in Tire Curing
-	131	1	New White Sidewall Protective Primer (Insignificant Activity)

The total emission increase associated with this project is 26.9 tpy VOC, 0.8 tpy PM/PM<sub>10</sub>, and 0.005 tpy Lead (Pb). Cooper also requested a revision to the permitted PM/PM<sub>10</sub> emission limits to GR-03, GR-04, GR-05, and GR-06. The permit limits for those sources were based on an annual tire production rate of approximately 20 million tires whereas the facility as whole is limited to 17 million tires. Accordingly, permitted PM/PM<sub>10</sub> emission limits were lowered by 3.6 tpy.

#### Modification #2

Cooper requested permission to install an additional truck radial green tire spray booth SN-132 at GR-04. The total emission increase associated with SN-132 is 3.5 tpy VOC and 1.2 tpy PM/PM<sub>10</sub>. Cooper requested the permit be modified for solvent change that affected Tire Building Area (SN-67), Tire Inspection/Repair and Reclass Area (SN-68 and SN-106), and Miscellaneous Plant-wide Use of Volatile Materials (SN-121). The maximum VOC content

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increased to 6.26 lb/gal to reflect the switch to the replacement solvent. VOC emissions associated with the solvent increased by 0.3 tpy.

The total emission increases associated from both modifications are 30.7 tpy VOC, 2.0 tpy PM/PM<sub>10</sub>, and 0.005 tpy Pb.

Permit 957-AOP-R9, issued on March 15, 2011, renewed the Title V Operating Air Permit for Cooper and incorporated a minor modification to allow the use of a repair paint with a higher VOC content. PM/PM<sub>10</sub> limits decreased by 0.3 tpy and individual HAP limits were revised due to differences in rounding methods between permit revisions. The maximum increase in potential VOC emissions due to the change in coatings was 0.13 tpy. Cooper did not request to increase the plantwide VOC limit of 249.0 tpy.

Permit 957-AOP-R10 was issued on September 8, 2011 to expand the rubber mixing operation at GR-01 in order to allow the facility to mix certain types of rubber compounds that were previously imported. The expansion was accomplished by installing two new mixers and extrusion lines and upgrading two existing mixers. The annual emission limits at rubber mixing (GR-01), rubber milling (SN-108), and rubber extrusion (SN-109) were revised based on rubber production limit in Specific Condition #4 of the permit. Overall, the permitted PM/PM<sub>10</sub> emission limits decreased by 0.8 tpy.

Permit 957-AOP-R11 was issued on October 11, 2012. The permit was modified for production of a new sheet rubber product, increase the production capacity of three mixers, add a rubber extrusion line, add ten tire curing presses, and replace the wet scrubber with a fabric filter at one the pellet coolers. Mixer #4 (SN-04), Mixer #7 (SN-51), and Mixer #8 (SN-133) were modified to produce sheet rubber product. The modification involved the replacement of the existing drop mills with rubber sheeters, a combination of rubber calendars and extruders. The mixer bodies of Mixer #2 (SN-02), #4, and #7 were upgraded and resulted in increased rubber production capacity of 2,030 lb/hr, 5,790 lb/hr and 9,450 lb/hr, respectively. Although rubber production capacity increased, permitted rubber throughput and silica usage remain at previously permitted limits. Similarly, the capacity increased at curing press and extrusion line areas but the rubber throughput remain at previously permitted limits. The only change in permitted emissions was due to the replacement of the scrubber with a fabric filter, and that resulted in a reduction of PM/PM<sub>10</sub> by 0.9 tpy.

Permit 957-AOP-R12 was issued on November 5, 2014. A pneumatic carbon black unloading system (SN-60) was permitted. The permitted amount of carbon black unloaded annually was not changed. Therefore, there was no change in annual emissions associated with the modification.

## SECTION IV: SPECIFIC CONDITIONS

GR-01  
(SN-01 through SN-06, SN-51, SN-133, and SN-134)  
Mixing

### Source Description

The Mixing Group includes No. 1 Mixer through No. 9 Mixer (SN-01 through SN-06, SN-51, SN-133, and SN-134). Natural and synthetic rubber, carbon black, process oil, curing agents, and other dry ingredients are combined in these mixers to form the different rubber compounds used in the plant. The mixers are each equipped with fabric filter dust collectors. The emissions from the mixers are bubbled together as one set of emission rates.

The VOC emissions from GR-01 are based on stack test data from Cooper's Findlay, Ohio tire manufacturing plant.

### Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through Specific Condition #4 and Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	1.2	4.5
VOC	25.3	*
Lead Compounds	1.00E-05	3.80E-05

\*Plantwide limit, see Plantwide Condition #10.

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through Specific Condition #4 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	1.2	4.5
4-Methyl-2-Pentanone (MIBK)	1.84	6.74
Cadmium Compounds	8.00E-06	2.80E-05
Methylene Chloride	N/A	0.55
Tetrachloroethene	N/A	0.90
Xylene	0.10	0.36
HAPs	N/A	12.26

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3. The permittee shall not exceed 20% opacity from GR-01 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
4. The permittee shall not mix or process in excess of 220,000 tons of final rubber and no more than 7,000 tons of silica ingredients from GR-01, SN-109, and SN-111 during any consecutive twelve month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
5. The permittee shall maintain records which demonstrate compliance with the limits set in Specific Condition #4. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual 12-month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

GR-02  
(SN-40 and SN-61)  
Pellet Coolers

Source Description

The Pellet Cooler Group includes the #1 and #4 Pellet Coolers (SN-40 and SN-61). The rubber from several of the master mixers (Mixers #1 and #4) is extruded into rubber pellets. These pellets are then dipped in a clay, water-based solution to detackify the pellets. The hot rubber pellets are conveyed to the pellet cooler where they are cooled.

Specific Conditions

6. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through Specific Condition #4 and equipment limitations [Reg. 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	1.2	4.4

7. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through Specific Condition #4 and equipment limitations. [Reg. 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	1.2	4.4

GR-03  
(SN-08, SN-09, and SN-115)  
Tread End Cementers

Source Description

This group includes #1, #2, and #3 Tread End Cementers (SN-08, SN-09, and SN-115). All extruded tread that meet specifications receive an application of tread end cement on the tread ends. Each tread line station is equipped with a manual and automatic tread end cement station. However, only one station is operated at a time. The automatic station consists of a spray booth, which exhausts to the atmosphere. The manual station consists of an operator manually brushing the cement on the tread ends. This group is subject to New Source Performance Standards, Subpart BBB-*Rubber Tire Manufacturing Industry*.

Specific Conditions

8. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through Specific Conditions #11 and #13, Plantwide Conditions #10 through #12, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	0.6	1.3
VOC	69.2	*

\*Plantwide limit, see Plantwide Condition #10.

9. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through Specific Condition #11 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	0.6	1.3

10. The permittee shall not exceed 20% opacity from GR-03 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
11. The permittee shall not process in excess of 17,000,000 treads or tires from GR-03, GR-04, GR-05, and GR-06 during any consecutive twelve month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
12. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #11. These records may be used by the Department for enforcement

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purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual 12-month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

13. The permittee shall not emit greater than 7.5 grams/tread/month of VOC at GR-03. Cooper has currently proposed and is permitted based on a limit more strict than 40 C.F.R. § 60, Subpart BBB requires. [Reg.19.304 and 40 C.F.R. § 60, Subpart BBB]
14. The permittee shall maintain records which demonstrate compliance with Specific Condition #13 and the NSPS standard. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. Each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]



GR-04  
(SN-14 through SN-19, 124, and 135)  
Radial Green Tire Spray Booths

Source Description

This group includes Radial Green Tire Spray Booths #1 through #6, #8, and #10 (SN-14 through SN-19, SN-124, and 135, respectively). Each green tire or uncured tire receives a coating of green tire spray on the inside and outside. This group is subject to New Source Performance Standards, Subpart BBB-*Rubber Tire Manufacturing Industry*.

Specific Conditions

15. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #11, #18 and #20, Plantwide Conditions #10 through #12, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	6.3	12.8
VOC	18.5	*

\*Plantwide limit, see Plantwide Condition #10.

16. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #11, #18, #20 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	6.3	12.8

17. The permittee shall not exceed 20% opacity from GR-04 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
18. The permittee shall not emit greater than 1.0 grams/tire/month of VOC from the Inside Paint at GR-04. Cooper has currently proposed and is permitted based on a limit more strict than this subpart requires. [Reg.19.304 and 40 C.F.R. § 60, Subpart BBB]
19. The permittee shall maintain records which demonstrate compliance with Specific Condition #18 and the NSPS. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. Each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

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20. The permittee shall not emit greater than 1.0 grams/tire/month of VOC from the Outside Paint at GR-04. Cooper has currently proposed and is permitted based on a limit more strict than this subpart requires. [Reg.19.304 and 40 C.F.R. § 60, Subpart BBB]
21. The permittee shall maintain records which demonstrate compliance with Specific Condition #20 and the NSPS. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. Each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

#### GR-05

(SN-20 through SN-25, SN-27, SN-28, SN-43 through SN-46, SN-78, SN-79, SN-82 through SN-86, SN-137, SN-138, SN-120, SN-122, SN-125, and SN-126)  
 Tire Uniformity Machines and Cleaning Area

#### Source Description

This group includes LTX and Passenger Tire Uniformity Optimizers (TUO) (SN-20 through SN-25, SN-27 SN-28, SN-43 through SN-46, SN-78, SN-79, SN-82 through SN-86, SN-137, SN-138, SN-120, SN-122 SN-125, and SN-126) and the Grind Cleaning Area (SN-105). All tires enter the TUOs, however only those that do not meet specifications are ground.

Emissions from Tire Uniformity Machines & Cleaning Area include various hazardous air pollutants. The HAP emission rates are based on emissions factors developed by RMA which are included as draft factors in AP-42.

#### Specific Conditions

22. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #11, Plantwide Conditions #10 through #12, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	2.4	4.5
VOC	0.9	*
Lead Compounds	8.11E-04	1.98E-02

\*Plantwide limit, see Plantwide Condition #10.

23. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #11 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	2.4	4.5
Cadmium Compounds	3.90E-05	7.80E-05
Methylene Chloride	N/A	0.04
Xylene	2.63E-03	0.07
HAPs	N/A	0.84

24. The permittee shall not exceed 20% opacity from GR-05 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

GR-06  
(SN-29 through SN-32, SN-47, SN-48, SN-69 through SN-71,  
SN-80, SN-96 through SN-103)  
White Sidewall Buffers

Source Description

This group includes White Sidewall Buffers #2 through #19 (SN-29 through SN-32, SN-47 through SN-48, SN-69 through SN-71, SN-80, SN-96 through SN-103). Tires that have white sidewalls enter the White Sidewall (WSW) Buffers where the rubber veneer coating that covers the white sidewall is ground off.

Emissions from the White Sidewall Buffers include various hazardous air pollutants. The Rubber Manufacturers Association has determined emission factors for all of the emitted HAPs.

Specific Conditions

25. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #11, Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	2.9	5.8
VOC	5.7	*
Lead Compounds	5.52E-03	0.02

\*Plantwide limit, see Plantwide Condition #10.

26. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #11 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	2.9	5.8
Cadmium Compounds	2.62E-04	5.33E-04
Methylene Chloride	N/A	0.02
Xylene	0.02	0.04
HAPs	N/A	0.78

27. The permittee shall not exceed 20% opacity from GR-06 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

GR-08  
(SN-66, SN-116, and SN-130)  
Tread Markers

Source Description

This group includes tread markers (SN-66, SN-116, and SN-130) which consist of multiple markers on #1, #2, and #3 tread lines that are used to mark the tread with identifying codes. Tread marking inks with thinner/cleanup materials are applied to the tread with rollers and drip-smear applications.

Specific Conditions

28. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #30, #32, Plantwide Conditions #10 through #12, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	2.4	*

\*Plantwide limit, see Plantwide Condition #10.

29. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #30, #32, and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
HAPs	N/A	1.10

30. The permittee shall not use in excess of 800 gallons of ink and 100 gallons of thinner from GR-08 during any consecutive twelve month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
31. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #30. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual 12-month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

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32. The permittee shall not exceed the ink and thinner VOC contents listed in the following table at GR 08. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

Solution	Component	Content (lb/gal)
Ink	VOC	6.52*
Thinner	VOC	9.11

\*Maximum glycol ether content is 21% by weight.

33. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the limits set in Specific Condition #32. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis and MSDS's shall be kept up-to-date. All records shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

SN-07  
Centralized Compounding

Source Description

Curing agents and miscellaneous dry ingredients are loaded into day bins, stored, and weighed to be used later in the rubber mixing process.

Specific Conditions

34. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #4 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	0.1	0.3

35. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #4 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	0.1	0.3

36. The permittee shall not exceed 20% opacity from SN-07 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

SN-53  
Boiler #1

Source Description

Boiler #1 (SN-53) is a 36 million BTU per hour natural gas fired boiler installed before 1969. The boiler can also be operated using No. 2 fuel oil, if the permittee desires. This boiler is permitted to operate under alternate operating scenarios. Scenario I represents natural gas combustion and Scenario II represents No. 2 fuel oil combustion up to the throughput limitation with natural gas combustion for the remainder of the 12-month rolling year. The boiler supplies steam to the facility for heat and operation of various equipment.

This boiler is not subject to NSPS Subpart Dc because it has not undergone reconstruction or modification since the applicable date of the rule, June 9, 1989.

This boiler is subject to the Boiler MACT. For the purpose of the subpart, the boiler is designated as an existing (installed prior to June 4, 2010) affected source. The boiler belongs to the units designed to burn gas 1 fuels subcategory. NESHAP DDDDD requirements for this source are enumerated in SECTION VI: Plantwide Conditions.

Specific Conditions

37. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #39, #45, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
Scenario I: Natural Gas Combustion		
PM <sub>10</sub>	0.3	1.2
SO <sub>2</sub>	0.1	0.1
VOC	0.2	0.9
CO	2.9	12.7
NO <sub>x</sub>	4.9	21.2
Scenario II: Fuel Oil Combustion		
PM <sub>10</sub>	0.6	1.9
SO <sub>2</sub>	11.3	29.6
VOC	0.2	0.5
CO	2.9	8.6
NO <sub>x</sub>	5.3	22.4



Pollutant	lb/hr	tpy
Worst Case Emissions		
PM <sub>10</sub>	0.6	1.9
SO <sub>2</sub>	11.3	29.6
VOC	0.2	0.9
CO	2.9	12.7
NO <sub>x</sub>	5.3	22.4
Lead Compounds	*	*

\* Total lead compound emissions for SN-53, SN-55, and SN-89.

38. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #39 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Scenario I: Natural Gas Combustion		
PM	0.3	1.2
Scenario II: Fuel Oil Combustion		
PM	0.6	1.9
Worst Case Emissions		
PM	0.6	1.9
HAPs	*	*

\*HAPs are permitted through Specific Condition #77

39. The permittee shall not use in excess of 1,388,475 gallons of fuel oil in SN-53 during any consecutive twelve month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
40. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #39. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. A 12-month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
41. *During periods when all three boilers (SN-53, SN-55, and SN-89) are operating simultaneously and firing fuel oil, the permittee shall not combust more than 1,220 gallons of fuel oil per hour in order to demonstrate compliance with the beryllium emission limits in Specific Condition #73. Compliance shall be demonstrated through maintaining records as specified in Specific Condition # 46.*

In lieu of restricting fuel usage to 1,220 gallons of fuel oil per hour, the permittee may elect to demonstrate compliance with this condition by conducting a one time fuel

analyses using a test method with a minimum beryllium detection limit of 10 parts per billion or less. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

42. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #41. These records may be used by the Department for enforcement purposes. Records shall be updated daily when all three boilers have operated simultaneously in excess of one hour, shall be kept on site, and shall be provided to Department personnel upon request. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
43. The permittee shall not exceed 5% opacity from SN-53 as measured by EPA Reference Method 9 when burning natural gas. Compliance with this condition will be demonstrated by firing only pipeline quality natural gas. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
44. The permittee shall not exceed 20% opacity from SN-53 as measured by EPA Reference Method 9 when burning fuel oil. Compliance with this condition will be demonstrated by Plantwide Condition #7. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
45. The permittee shall not exceed 0.30 weight percent sulfur content in the No. 2 fuel oil used to fire the boiler. [Reg.19.304 and 40 C.F.R. § 60.42c (d)]
46. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #45. These records may be used by the Department for enforcement purposes. Records shall be kept up-to-date, shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

SN-55  
Boiler #3

Source Description

Boiler #3 (SN-55) is a 72 million BTU per hour natural gas fired boiler installed before 1969. The boiler can also be operated using No. 2 fuel oil, if the permittee desires. This boiler is permitted to operate under alternate operating scenarios. Scenario I represents natural gas combustion and Scenario II represents No. 2 fuel oil combustion up to the throughput limitation with natural gas combustion for the remainder of the 12-month rolling year. The boiler supplies steam to the facility for heat and operation of various equipment.

This boiler is not subject to NSPS Subpart Dc because it has not undergone reconstruction or modification since the applicable date of the rule, June 9, 1989.

This boiler is subject to the Boiler MACT. For the purpose of the subpart, the boiler is designated as an existing (installed prior to June 4, 2010) affected source. The boiler belongs to the units designed to burn gas 1 fuels subcategory. NESHAP DDDDD requirements for this source are enumerated in SECTION VI: Plantwide Conditions.

Specific Conditions

47. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #49, #53, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
Scenario I: Natural Gas Combustion		
PM <sub>10</sub>	0.6	2.3
SO <sub>2</sub>	0.1	0.2
VOC	0.4	1.8
CO	5.8	25.4
NO <sub>x</sub>	9.7	42.3
Scenario II: Fuel Oil Combustion		
PM <sub>10</sub>	1.1	3.7
SO <sub>2</sub>	22.6	59.2
VOC	0.4	1.1
CO	5.8	17.1
NO <sub>x</sub>	10.6	44.8

Pollutant	lb/hr	tpy
Worst Case Emissions		
PM <sub>10</sub>	1.1	3.7
SO <sub>2</sub>	22.6	59.2
VOC	0.4	1.8
CO	5.8	25.4
NO <sub>x</sub>	10.6	44.8
Lead Compounds	*	*

\* Total lead compound emissions for SN-53, SN-55, and SN-89.

48. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #49 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Scenario I: Natural Gas Combustion		
PM	0.6	2.3
Scenario II: Fuel Oil Combustion		
PM	1.1	3.7
Total Emissions		
PM	1.1	3.7
HAPs	*	*

\*HAPs are permitted through Specific Condition #77

49. The permittee shall not use in excess of 2,776,950 gallons of fuel oil in SN-55 during any consecutive 12-month period. *During periods when all three boilers (SN-53, SN-55, and SN-89) are operating simultaneously and firing fuel oil*, the permittee shall comply with the additional limits in Specific Condition #41 in addition to complying with the annual fuel oil limit. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]]
50. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #49. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. A 12-month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
51. The permittee shall not exceed 5% opacity from SN-55 as measured by EPA Reference Method 9 when burning natural gas. Compliance with this condition will be demonstrated by firing only natural gas. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

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52. The permittee shall not exceed 20% opacity from SN-55 as measured by EPA Reference Method 9 when burning fuel oil. Compliance with this condition will be demonstrated by Plantwide Condition #7. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
53. The permittee shall not exceed 0.30 weight percent sulfur content in the No. 2 fuel oil used to fire the boiler. [Reg.19.304 and 40 C.F.R. § 60.42c (d)]
54. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #53. These records may be used by the Department for enforcement purposes. Records shall be kept up-to-date, shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

GR-09  
(SN-59 and SN-60)  
Carbon Black Unloading/Distribution System

Source Description

Carbon black is received in railcars and trucks and unloaded into an enclosed, mechanical/pneumatic conveyor system. From there, the carbon black is transferred to storage silos. From the silos, enclosed, mechanical/pneumatic transfer of the carbon black is made to the rubber mixers.

Specific Conditions

55. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #58 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source No.	Description	Pollutant	lb/hr	tpy
SN-59	Mechanical System	PM <sub>10</sub>	0.5	0.4
SN-60	Pneumatic System	PM <sub>10</sub>	0.5	

56. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #58 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source No.	Description	Pollutant	lb/hr	tpy
SN-59	Mechanical System	PM	0.5	0.4
SN-60	Pneumatic System	PM	0.5	

57. The permittee shall not exceed 20% opacity from GR-09 as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by Plantwide Condition #8. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
58. The permittee shall not process in excess of 80,000 tons of carbon black, total combined throughput, from GR-09 during any consecutive twelve month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
59. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #58. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual 12-month rolling total and

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each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

SN-67  
Tire Building Area

Source Description

All tire components are brought to the Tire Building Area (SN-67) where the tire builders assemble them. The components are assembled in a specific sequence on several different types of tire building machines. Passenger and light truck tires are assembled in two stages on different machines. At this point in the process, the tires are known as green tires. HAP-free solvents and cements are periodically used during tire building.

Specific Conditions

60. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #61 and #63, Plantwide Conditions #10 through #11, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	3.8	*

\* Plantwide limit, see Plantwide Condition #10.

61. The permittee shall not process in excess of 650 gallons of cement and 2,000 gallons of solvent from SN-67 during any consecutive twelve month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
62. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #61. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual 12 month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
63. The permittee shall only use HAP free solvents and paints at SN-67. The VOC content shall not exceed the limits provided in the following table. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

Material	Component	Content (lb/gal)
Solvent	VOC	6.26
Cement	VOC	6.28

64. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the limits set in Specific Condition #61. These records may be used by the



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Department for enforcement purposes. Records shall be updated on a monthly basis and MSDS's shall be kept up-to-date. All records shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

SN-68 and SN-106  
Tire Inspection/Repair and Reclass Area

Source Description

All tires are inspected. Minor appearance repairs are made as required. HAP-free solvents and repair paints including paints with HAP are used to make cosmetic repairs. Small hand held grinders are used on some tires to affect minor repairs in the tire appearance. The grinding process is a Group B-17 insignificant activity.

Specific Conditions

65. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #67 and #69; Plantwide Conditions #10 and #11; and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	1.0	*

\* Plantwide limit, see Plantwide Condition #10.

66. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #67 and #69 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
HAPs	N/A	0.03

67. The permittee shall not use in excess of the materials and amounts listed in the following table for SN-68 and SN-106, during any consecutive twelve month period.

Material	Usage Limit (gal)
Solvent	650
Paint	2,500

[Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

68. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #67. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual 12 month rolling total and

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each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

69. The VOC content and the HAP content shall not exceed the limits provided in the following table. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]]

Material	Component	Content (lb/gal)
Solvent	VOC	6.26
Repair Paint	VOC Single HAP	0.10 9.00E-05

70. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the emission limits set in Specific Condition #69. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis and MSDS's shall be kept up-to-date. All records shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

SN-89  
Boiler #4

Source Description

Boiler #4 (SN-89) was previously permitted for a rated capacity of 118.7 million BTU per hour for both natural gas and No. 2 Fuel Oil. However, currently the boiler is rated at less than 100 MMBTU/hr for all permitted types of fuel. This boiler is permitted to operate under alternate operating scenarios. Scenario I represents natural gas combustion and Scenario II represents No. 2 fuel oil combustion up to the throughput limitation with natural gas combustion for the remainder of the 12-month rolling year. The boiler supplies steam to the facility for heat and operation of various equipment.

Cooper reduced the heat input rating from 103.7 MMBTU/hr to 95 MMBtu/hr while burning Fuel Oil No. 2 and from 108 MMBtu/hr to 99.7 MMBTU/hr while burning natural gas. The oil train valve trim was modified to limit the flow of fuel oil to the burner. The oil flow meter and air flow control were re-calibrated to the new pressure settings and control valve specifications. Since the de-rating of the boiler was completed, the boiler is no longer subject to 40 C.F.R. § 60 Subpart Db and will only be subject to applicable requirements in 40 C.F.R. § 60 Subpart Dc.

This boiler is subject to the Boiler MACT. For the purpose of the subpart, the boiler is designated as an existing (installed prior to June 4, 2010) affected source. The boiler belongs to the units designed to burn gas 1 fuels subcategory. NESHAP DDDDD requirements for this source are enumerated in SECTION VI: Plantwide Conditions.

Specific Conditions

71. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #77, #82, and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
Scenario I: Natural Gas Combustion		
PM <sub>10</sub>	1.1	4.2
SO <sub>2</sub>	0.2	0.6
VOC	1.1	4.2
CO	8.1	35.2
NO <sub>x</sub>	7.1	30.6
Scenario II: Fuel Oil Combustion		
PM <sub>10</sub>	4.2	8.1
SO <sub>2</sub>	29.4	36.5
VOC	1.0	3.6
CO	17.3	46.5
NO <sub>x</sub>	15.5	41.0

Pollutant	lb/hr	tpy
Worst Case Emissions		
PM <sub>10</sub>	4.2	8.1
SO <sub>2</sub>	29.4	36.5
VOC	1.0	4.2
CO	17.3	46.5
NO <sub>x</sub>	15.5	41.0
Lead Compounds	1.54E-03*	3.93E-03*

\* Total lead compound emissions for SN-53, SN-55, and SN-89.

72. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #77 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Scenario I: Natural Gas Combustion		
PM	1.1	4.2
Scenario II: Fuel Oil Combustion		
PM	4.2	8.1
Worst Case Emissions		
PM	4.2	8.1
HAPs	*	*

\*HAPs are permitted through Specific Condition #73.

73. The permittee shall not exceed the total emission rates set forth in the following table for SN-53, SN-55, and SN-89. The permittee shall demonstrate compliance with this condition by Specific Conditions #39, #41, #49, and #77 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Arsenic Compounds	6.83E-04	1.74E-03
Beryllium Compounds	5.13E-04	1.24E-03
Cadmium Compounds	5.12E-04	1.76E-03
Mercury Compounds	5.12E-04	1.36E-03
Selenium Compounds	2.56E-03	6.17E-03
Xylene	1.33E-04	3.20E-04
HAPs	N/A	1.74

74. The permittee must maintain documentation which demonstrates that the maximum capacity of the boiler is less than 100 MMBTU/hr for natural gas combustion or No. 2 fuel oil combustion. These records may be used by the Department for enforcement

- purposes. All records shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
75. The permittee shall comply with all applicable requirements of 40 C.F.R. § 60 Subpart Dc. The source is a steam generating unit for which construction, modification, or reconstruction commenced after June 9, 1989 and has a maximum design heat input capacity less than 100 MMBtu/hr. [Reg.19.304 and 40 C.F.R. § 60.40c (a)]
76. The permittee shall not simultaneously combust mixtures of oil and natural gas in Boiler #4, SN-89. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
77. *When operating under Scenario II:* The permittee shall not use in excess of 1,695,103 gallons of fuel oil in SN-89 during any consecutive twelve month period. *During periods when all three boilers (SN-53, SN-55, and SN-89) are operating simultaneously and firing fuel oil,* the permittee shall comply with the additional limit in Specific Condition #41 in addition to complying with the annual fuel oil limit. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
78. The permittee shall record and maintain records of the amounts of each fuel combusted during each month. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. A 12-month rolling total and each month's individual data shall be submitted to the Department in accordance with General Provision #7. [Reg.19.304 and 40 C.F.R. § 60.48c (g)]
79. *When operating under Scenario I:* The permittee shall not exceed 5% opacity from SN-89 as measured by EPA Reference Method 9 when burning natural gas. Compliance with this condition will be demonstrated by firing only natural gas. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
80. *When operating under Scenario II:* The permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity, as measured by EPA Reference Method 9. The opacity standard applies at all times (when operating under Scenario II), except during periods of startup, shutdown, or malfunction. The permittee shall demonstrate compliance with this condition through Plantwide Condition #7. [Reg.19.304 and 40 C.F.R. § 60.43c (c) and (d)]
81. *When operating under Scenario II:* The permittee shall maintain records which demonstrate compliance with the limits set in Specific Condition 80. These records may be used by the Department for enforcement purposes. Records shall be updated daily, shall be kept on site, and shall be provided to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

82. *When operating under Scenario II:* The permittee shall not combust oil that contains greater than 0.3 weight percent sulfur. The fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. [Reg.19.304 and 40 C.F.R. § 60.42c (d) and (i)]
83. *When operating under Scenario II:* Compliance with the fuel oil sulfur limit in Specific Condition #82 may be determined based on the following: [Reg.19.304, 40 C.F.R. § 60.42c (h)(1) and 40 C.F.R. § 60.44c (g)]
- a. Certification from the fuel supplier, as described under 40 C.F.R. §60.48c(f)(1) and Specific Condition #84; or
  - b. Fuel sampling the oil in the fuel tank and determining the sulfur content immediately after each new shipment of oil is received and before any oil is combusted.
84. *When operating under Scenario II:* The fuel supplier certification shall include the following information: [Reg.19.304 and 40 C.F.R. § 60.48c (f)]
- a. The name of the oil supplier;
  - b. A statement from the oil supplier indicating that the fuel oil does not exceed 0.3 weight percent sulfur content; and
  - c. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 C.F.R. §60.41c.
85. The permittee shall keep records of the fuel oil sulfur content and submit reports as required under 40 C.F.R. § 60 Subpart Dc. The reports shall be submitted in accordance with General Provision #7 and include calendar dates covered in the reporting period. The reports shall include the following information, as applicable: [Reg.19.304 and 40 C.F.R. § 60.48c (e)]
- a. The sulfur content of the oil as determined by shipment fuel sampling; or
  - b. Records of fuel supplier certification used to demonstrate compliance, records of fuel supplier certification as described under 40 C.F.R. § 60.48c paragraph (f)(1), Specific Condition #84. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period; or
  - c. A combination of a and b above.

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86. All records required under 40 C.F.R. § 60 Subpart Dc shall be maintained onsite by the permittee for a period of two years following the date of such record. [Reg.19.304 and 40 C.F.R. § 60.48c (i)]



SN-108  
Rubber Milling

Source Description

Rubber Milling (SN-108) includes all milling operations at the plant, except those directly associated with Mixing (GR-01). Regulation 19 Insignificant Activities list includes rubber mills for which no materials in powder form are added and no organic solvents, diluents, or thinners are used (Group B, No. 69). However, the estimated emissions from the rubber milling activities at Cooper exceed insignificant levels; therefore, the rubber milling activities are now included in the permit as a significant source.

Mixed rubber is broken-down on the mills for presentation to calenders, extruders, and other equipment. Some rubber recycling operations within the facility also involve a milling step. Some milling also occurs as part of the rubber mixing process. The emissions associated with those mills are included in Mixing (GR-01). Cooper conservatively estimates that 70% of the mixed rubber is milled.

Emissions from Rubber Milling include various hazardous air pollutants. The HAP emission rates are based on emissions factors developed by RMA which are included as draft factors in AP-42.

Specific Conditions

87. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	23.8	*

\* Plantwide limit, see Plantwide Condition #10.

88. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #4 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
4-Methyl-2-Pentanone (MIBK)	0.67	2.45
Methylene Chloride	N/A	0.20
Tetrachloroethene	N/A	1.30E-02
Xylene	0.05	0.17
HAPs	N/A	4.40

SN-109  
Rubber Extrusion

Source Description

Rubber Extrusion (SN-109) includes all extrusion operations plant-wide.

Emissions from Rubber Extrusion include various hazardous air pollutants. The HAP emission rates are based on emissions factors developed by RMA which are included as draft factors in AP-42.

Specific Conditions

89. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	1.2	*

\* Plantwide limit, see Plantwide Condition #10.

90. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #4 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
4-Methyl-2-Pentanone (MIBK)	0.33	1.22
Acrolein	0.02	0.07
Methylene Chloride	N/A	2.90
Tetrachloroethene	N/A	0.50
Xylene	0.04	0.13
HAPs	N/A	8.44

SN-110  
Rubber Calendering

Source Description

Rubber Calendering (SN-110) includes all calendering operations at the plant, including the four-roll calender, the creel calender, and the twin two-roll calender. Regulation 19 Insignificant Activities list includes rubber calenders for which no materials in powder form are added and no organic solvents, diluents, or thinners are used (Group B, No. 69). However, the estimated emissions from the rubber calendering activities at Cooper exceed insignificant levels; therefore, the rubber milling activities are now included in the permit as a significant source.

Specific Conditions

91. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	1.4	*

\* Plantwide limit, see Plantwide Condition #10.

92. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #4 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
4-Methyl-2-Pentanone (MIBK)	0.02	0.06
Acrolein	1.88E-03	6.88E-03
Methylene Chloride	N/A	4.15E-03
Xylene	0.02	0.06
HAPs	N/A	1.01

SN-111  
Tire Curing Operations

Source Description

This source includes curing presses (total of 236 presses) for light truck and passenger car tires. In the tire curing operation, the tires are vulcanized (cured) in a mold for a specified time at a controlled temperature and pressure.

Emissions from Tire Curing include various hazardous air pollutants. The Rubber Manufacturers Association has determined emission factors for all of the emitted HAPs.

Specific Conditions

93. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	20.3	*

\* Plantwide limit, see Plantwide Condition #10.

94. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #4 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
4-Methyl-2-Pentanone (MIBK)	1.18	4.30
Acrolein	0.03	0.09
Hexachlorobutadiene	0.03	0.10
Methylene Chloride	N/A	1.64
Tetrachloroethene	N/A	0.05
Xylene	3.78	13.85
HAPs	N/A	41.49

SN-121  
Miscellaneous Plant-wide Use of Volatile Materials

Source Description

A number of miscellaneous materials are used in minor quantities at various points in the plant. This includes solvents, cements, inks, and paints.

Specific Conditions

95. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions #10 through #12 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	4.5	*

\* Plantwide limit, see Plantwide Condition #10.

96. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by Specific Conditions #97, #98, #99 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Xylene	0.02	0.09
HAPs	N/A	1.35

97. The permittee shall maintain monthly records of miscellaneous solvents, cements, inks, and paints used at SN-121, and usage of all other production related materials containing HAPs (in quantities greater than de minimis levels) to demonstrate compliance with Specific Condition #96. All calculations used to produce these records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department upon request. These records shall be kept available for inspection or submittal for five years from the date of record. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
98. The permittee shall perform emission calculations to determine the total monthly HAP emissions using the records required in Specific Condition #97. The permittee shall determine the average hourly emissions (based on monthly records) and the rolling 12-month total HAP emissions for each calendar month to demonstrate compliance with Specific Condition #96. These records shall be kept on site, updated monthly, and made available to Department personnel upon request. The rolling 12-month total for each month shall be submitted to the Department in accordance the General Provision #7.

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[Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

99. The permittee shall maintain records and MSDS sheets for all cement and solvent materials as well as any other production related material on site containing HAPs. These records may be used by the Department for enforcement purposes. Records shall be kept up-to-date, shall be kept on site, and shall be provided to Department personnel upon request. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

GR-10  
 (SN-140 and SN-141)  
 Fire Pump Engine

Source Description

SN-140 is a 313 bhp CI RICE fire pump engine. The engine was installed in 2004. SN-141 is a 425 bhp CI RICE fire pump. The engine was installed in 2002. For the purpose of RICE MACT applicability, both engines are existing stationary RICE located at a major source of HAP.

Specific Conditions

100. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by complying with Specific Condition #102. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source No.	Description	Pollutant	lb/hr	tpy
SN-140	Emergency Fire Pump #1	PM <sub>10</sub>	0.7	0.2
		SO <sub>2</sub>	0.7	0.2
		VOC	0.8	0.2
		CO	2.1	0.6
		NO <sub>x</sub>	9.7	2.5
SN-141	Emergency Fire Pump #2	PM <sub>10</sub>	1.0	0.3
		SO <sub>2</sub>	0.9	0.3
		VOC	1.1	0.3
		CO	2.9	0.8
		NO <sub>x</sub>	13.2	3.3

101. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by complying with Specific Condition #102. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source No.	Description	Pollutant	lb/hr	tpy
SN-140	Emergency Fire Pump #1	PM	0.7	0.2
		HAPs	N/A	0.01
SN-141	Emergency Fire Pump #2	PM	1.0	0.3
		HAPs	N/A	0.01

102. The permittee shall not operate the emergency fire pumps SN-140 and SN-141 in excess of 500 total hours (emergency and non-emergency) per calendar year per pump in order to demonstrate compliance with the annual emission rate limits. Emergency operation in excess of these hours may be allowable but shall be reported and will be evaluated in accordance with Reg.19.602 and other applicable regulations. [Reg.19.705, Ark. Code

Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

103. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #102. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The calendar year totals and each individual month's data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
104. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
140	20%	Reg.19.503 and 40 C.F.R. § 52 Subpart E
141	20%	

105. Annual observations of the opacity from SN-140 and SN-141 shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated annually, kept on site, and made available to Department personnel upon request. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.
106. SN-140 and SN-141 are existing emergency CI RICE that are less than 500 hp and located at a major source of HAP. The engines are subject to the requirements of 40 C.F.R. § 63, Subpart ZZZZ - *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* with a compliance date of May 3, 2013. The applicable requirements include but are not limited to the following:
- There is no time limit on the use of emergency stationary RICE in emergency situations. [Reg.19.304 and 40 C.F.R. § 63.6640(f)(1)]



- b. The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee 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 permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [Reg.19.304 and 40 C.F.R. § 63.6640(f)(2)]
- c. The permittee may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power [Reg.19.304 and 40 C.F.R. § 63.6640(f)(3)]
- d. If the permittee does not operate the engine according to the requirements in the preceding paragraph, the engine will not be considered an emergency engine under Subpart ZZZZ, and the permittee will need to meet all requirements for non-emergency engines. [Reg.19.304 and 40 C.F.R. § 63.6640(f)]
- e. For each engine, the permittee shall install a non-resettable hour meter if one is not already installed. [Reg.19.304 and 40 C.F.R. § 63.6625 (f)]
- f. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions, or the permittee may develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the

engine in a manner consistent with good air pollution control practice for minimizing emissions. [Reg.19.304 and 40 C.F.R. § 63.6625 (e)]

- g. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [Reg.19.304 and 40 C.F.R. § 63.6625 (h)]
- h. For each engine, the permittee shall change the oil and filter and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. The permittee may utilize an oil analysis program in accordance with 40 C.F.R. § 63.6625(i) in order to extend oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil. [Reg.19.304 and 40 C.F.R. § 63.6602]
- i. For each engine, the permittee shall inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first. [Reg.19.304 and 40 C.F.R. § 63.6602]
- j. The permittee must report each instance in which the permittee was not in compliance with paragraphs (f),(g),(h), (i), or any other applicable requirement of Subpart ZZZZ. These instances are deviations from the requirements of the subpart and must be reported in semiannual monitoring report. [Reg.19.304 and 40 C.F.R. § 63.6640 and 40 C.F.R. § 63.6650 (f)]
- k. The permittee must maintain records in order to comply with Subpart ZZZZ. These records must be in a form suitable and readily available for expeditious review. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records the permittee must maintain include but are not limited to reports submitted, operating and maintenance instructions, maintenance records, malfunctions, and actions taken during malfunctions to minimize emissions. The records pertaining to the hours of operation must include hours of emergency use, hours of non-emergency use, emergency classification, demand response use, and notifications. [Reg.19.304, 40 C.F.R. § 63.6655, and 40 C.F.R. § 63.660]

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## SECTION V: COMPLIANCE PLAN AND SCHEDULE

Cooper Tire & Rubber Company will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

## SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee must provide:
  - a. Sampling ports adequate for applicable test methods;
  - b. Safe sampling platforms;
  - c. Safe access to sampling platforms; and
  - d. Utilities for sampling and testing equipment.

[Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Reg. 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
7. Daily observations of the opacity of SN-53, SN-55, and SN-89 shall be conducted, only when these sources are firing fuel oil, by personnel familiar with the permittees visible

emissions. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. If opacity is still greater than permit limits, a full Method 9 reading is required. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

- a. The date and time of the observation
  - b. If visible emissions which appeared to be above the permitted limit were detected
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.
8. Weekly observations of the opacity of GR-01, GR-02, GR-03, GR-04, GR-05, GR-06, SN 07, and GR-09 shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. If opacity is still greater than permit limits, a full Method 9 reading is required. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
  - a. The date and time of the observation
  - b. If visible emissions which appeared to be above the permitted limit were detected
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.
9. The permittee shall not exceed the following process limits during any consecutive twelve month period:

Source/Group	Material	Limit
GR-01, SN-109, SN-111	Mixed & Imported Rubber	220,000 tons
GR-01, SN-109, SN-111	Silica Ingredient Usage	7,000 tons
GR-09	Carbon Black	80,000 tons
GR-03, GR-04, GR-05, GR-06	Treads/Tires	17,000,000
GR-08	Ink	800 gallons
	Solvent	100 gallons
SN-67	Cement	650 gallons
	Solvent	2,000 gallons
SN-68, SN-106	Solvent	650 gallons
	Paint	2,500 gallons

The limits listed above have corresponding throughput limits and recordkeeping requirements at each specific source group throughout the permit. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

10. The permittee shall not discharge or cause the discharge into the atmosphere from the facility any gases which contain VOC from emission sources in the amount equal to or in excess of 249 tons during any rolling 12-month period. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
11. The permittee shall maintain monthly records of mixed and imported rubber processed, silica ingredient usage boiler fuel usage, and usage of all tire production related materials containing VOCs (non-janitorial) to demonstrate compliance with Plantwide Condition 10. All calculations used to produce these records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department upon request. These records shall be kept available for inspection or submittal for five years from the date of record. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
12. The permittee shall perform emission calculations to determine the total monthly VOC emissions using the records required in Plantwide Condition 11. The permittee shall determine the rolling 12-month total VOC emissions for each calendar month to demonstrate compliance with Plantwide Condition 10. These records shall be kept on site, updated monthly, and made available to Department personnel upon request. If during any consecutive 12-month period the actual VOC emissions exceed 237.5 tons per year, the facility shall be required to demonstrate the accuracy of its record keeping system to show that emissions were less than 250 tons/year. The rolling 12-month total for each month shall be submitted to the Department in accordance with General Provision 7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

#### Semi-Annual Reporting Dates

13. The permittee shall submit semi-annual reports as required by General Provision 7 by July 31 and January 31 of each calendar year. Annual Compliance Certifications shall be

submitted to the Department by January 31 of each calendar year. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

NESHAP XXXX Applicable Requirements

14. The facility is subject to and shall comply with applicable provisions of 40 C.F.R. § 63 Subpart XXXX - *National Standards for Hazardous Air Pollutants from Rubber Tire Manufacturing*. A copy of Subpart XXXX is provided in Appendix B. Applicable provisions include, but are not limited to, those specified in the following conditions.
15. 40 C.F.R. § 63, Subpart XXXX applies to each existing, new, or reconstructed affected source at facilities engaged in the manufacture of rubber tires or their components. The tire production affected source is the collection of all processes that use or process cements and solvents as defined in §63.6015, located at any rubber tire manufacturing facility. It includes, but is not limited to: Storage and mixing vessels and the transfer equipment containing cements and/or solvents; wastewater handling and treatment operations; tread and cement operations; tire painting operations; ink and finish operations; undertread cement operations; process equipment cleaning materials; bead cementing operations; tire building operations; green tire spray operations; extruding, to the extent cements and solvents are used; cement house operations; marking operations; calender operations, to the extent solvents are used; tire striping operations; tire repair operations; slab dip operations; other tire building operations, to the extent that cements and solvents are used; and balance pad operations. [Reg.19.304 and 40 C.F.R. § 63.5982]
16. The permittee must meet each emission limit in either option 1 or option 2 of Table 1 to NESHAP Subpart XXXX that applies. Cooper Tire has chosen to comply with option 1, HAP constituent option. [Reg.19.304 and 40 C.F.R. § 63.5984]
17. The permittee must use one of the compliance alternatives in paragraphs (a) through (c) of this condition to meet either of the emission limits in option 1 of Table 1 of NESHAP Subpart XXXX. [Reg.19.304 and 40 C.F.R. § 63.5985]
  - a. Purchase alternative. Use only cements and solvents that, as purchased, contain no more HAP than allowed by the emission limits in Table 1 to Subpart XXXX, option 1 (HAP constituent option).
  - b. Monthly average alternative, without using an add-on control device. Use cements and solvents in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 1 to Subpart XXXX, option 1 or option 2.
  - c. Monthly average alternative, using an add-on control device. Use a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the emission limits in Table 1 to Subpart XXXX, option 1 or option 2.
18. The permittee must determine the mass percent of HAP in cements and solvents. To determine the HAP content in the cements and solvents at the tire production affected

source, use EPA Method 311 of Appendix A of 40 C.F.R. § 63, an approved alternative method, or any other reasonable means for determining the HAP content of the cements and solvents. Other reasonable means include, but are not limited to: a material safety data sheet (MSDS), provided it contains appropriate information; a certified product data sheet (CPDS); or a manufacturer's hazardous air pollutant data sheet. The permittee is not required to test the materials that are in use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations. [Reg.19.304 and 40 C.F.R. § 63.5994 (a)]

19. The permittee must demonstrate compliance with the HAP constituent emission limits in Table 1 to Subpart XXXX (option 1). Use the equations in paragraphs (b)(2) and (3) of §63.5994 (Plantwide Condition 25) to demonstrate initial and continuous compliance with the emission limits for tire production affected sources using the monthly average compliance alternatives described in §63.5985(b) and (c), Plantwide Condition 21. [Reg.19.304 and 40 C.F.R. § 63.5994 (b)]
20. The permittee shall use Equation 1 of §63.5994 (b)(2) to calculate the HAP emission rate for each monthly operating period when complying by using cements and solvents without using an add-on control device so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to Subpart XXXX, option 1. Equation 1 follows:[Reg.19.304 and 40 C.F.R. § 63.5994 (b)(2)]
21. The permittee shall monitor and collect data to demonstrate continuous compliance with the emission limits for tire production affected sources as specified in Table 9 to Subpart XXXX. Except for periods of monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) while the affected source is operating. This includes periods of startup, shutdown, and malfunction when the affected source is operating. [Reg.19.304 and 40 C.F.R. § 63.6003]
22. The permittee shall demonstrate continuous compliance with the emission limits for tire production affected sources using the methods specified in Table 10 to Subpart XXXX. The permittee must report each instance in which the facility did not meet an emission limit in Table 1 to Subpart XXXX. The permittee must also report each instance in which the permittee did not meet the applicable requirements in Table 10 to Subpart XXXX. These instances are deviations from the emission limits in Subpart XXXX. The deviations must be reported in accordance with the requirements in 40 C.F.R. §63.6010(e). [Reg.19.304 and 40 C.F.R. § 63.6004]
23. The permittee must submit notifications as required in 40 C.F.R. §63.6009. [Reg.19.304 and 40 C.F.R. § 63.6009]



24. The permittee must submit each applicable report in Table 15 to Subpart XXXX. The permittee must submit each report by the date in Table 15 to Subpart XXXX and according to the requirements in the following paragraphs (a) through (e) of this condition. [Reg.19.304 and 40 C.F.R. § 63.6010(a) and (b)]
- a. The first compliance report must cover the period beginning on the compliance date that is specified for the affected source in §63.5983 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for the source in §63.5983.
  - b. The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.5983.
  - c. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
  - d. Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
  - e. For each affected source that is subject to permitting subparts pursuant to 40 C.F.R. § 70 or 40 C.F.R. § 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 C.F.R. 70.6(a)(3)(iii)(A) or 40 C.F.R. 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (a) through (d) of this condition.
25. The compliance report specified in Plantwide Condition 29 must contain information specified in paragraphs (a) through (h) of this condition: [Reg.19.304 and 40 C.F.R. § 63.6010 (c)]
- a. Company name and address.
  - b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - c. Date of report and beginning and ending dates of the reporting period.
  - d. If the permittee had a startup, shutdown or malfunction during the reporting period and the actions taken consistent with the startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).
  - e. If there are no deviations from any emission limitations (emission limit or operating limit) that applies, a statement that there were no deviations from the emission limitations during the reporting period.
  - f. If there were no periods during which the operating parameter monitoring systems were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the operating parameter monitoring systems or CPMS were out-of-control during the reporting period.

- g. For each tire production affected source, the emission limit option in §63.5984 and the compliance alternative in §63.5985 that the permittee has chosen to meet.
  - h. For each tire production affected source complying with the purchase compliance alternative in §63.5985(a), and for each annual reporting period during which you use a cement and solvent that, as purchased, was not included in the list submitted with the Notification of Compliance Status in §63.6009(g), an updated list of all cements and solvents used, as purchased, at the affected source. You must also include a statement certifying that each cement and solvent, as purchased, that was used at the affected source during the reporting period met the HAP constituent limits (option 1) in Table 1 to this subpart.
26. For each deviation from an emission limitation (emission limit or operating limit) that occurs at an affected source where the permittee is not using a CPMS to comply with the emission limitations in Subpart XXXX, the compliance report must contain the information in Plantwide Condition 30.a) thru (d) and the information in paragraphs (a) and (b) of this condition. This includes periods of startup, shutdown, and malfunction when the affected source is operating. [Reg.19.304 and 40 C.F.R. § 63.6010 (d)]
- a. The total operating time of each affected source during the reporting period.
  - b. Information on the number, duration, and cause of deviations (including unknown cause, if applicable) and the corrective action taken.
27. Each affected source that has obtained a Title V operating permit pursuant to 40 C.F.R. § 70 or 40 C.F.R. § 71 must report all deviations as defined in Subpart XXXX in the semiannual monitoring report required by 40 C.F.R. §70.6(a)(3)(iii)(A) or 40 C.F.R. §71.6(a)(3)(iii)(A). If an affected source submits a compliance report (pursuant to Table 10 to Subpart XXXX) along with, or as part of, the semiannual monitoring report required by 40 C.F.R. §70.6(a)(3)(iii)(A) or 40 C.F.R. §71.6(a)(3)(iii)(A) which includes all required information concerning deviations from any emission limitation (including any operating limit) or work practice requirement in Subpart XXXX, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [Reg.19.304 and 40 C.F.R. § 63.6010(e)]
28. The permittee must keep the records specified in paragraphs (a) through (c) of this condition. [Reg.19.304 and 40 C.F.R. § 63.6011 (a)]
- a. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
  - b. Records of performance tests as required in §63.10(b)(2)(viii).

- c. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- 29. For each tire production affected source, the permittee must keep the records specified in Table 9 to Subpart XXXX to show continuous compliance with each emission limit that applies to the affected facility. [Reg.19.304 and 40 C.F.R. § 63.6011 (b)]
- 30. The permittee must keep records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years. [Reg.19.304 and 40 C.F.R. § 63.6012]
- 31. The permittee must comply with the General Provisions of 40 C.F.R. § 63 as specified in Table 17 of 40 C.F.R. § 63, Subpart XXXX. [Reg.19.304 and 40 C.F.R. § 63.6013]

NESHAP Subpart DDDDD Requirements

For SN-53, SN-55, and SN-89

- 32. SN-53, SN-55, and SN-89 are affected sources subject to the requirements of 40 C.F.R. 63, Subpart DDDDD – *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*. For the purpose of the subpart each boiler is designated as an existing unit that belongs to the units designed to burn gas 1 fuels subcategory. The permittee shall comply with the subpart no later than January 31, 2016, except as provided in § 63.6(i). The applicable requirements include, but are not limited to the following: [Reg.19.304 and 40 C.F.R. § 63, Subpart DDDDD]
  - a. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart. [Reg.19.304 and 40 C.F.R. § 63.7500 (e)]
    - i. If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in §63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of §63.7540 to demonstrate continuous compliance. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the

oxygen concentration measured during the most recent tune-up.  
[Reg.19.304 and 40 C.F.R. § 63.7540 (a)(12)]

- b. The permittee must complete an initial tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) no later than January 31, 2016. [Reg.19.304 and 40 C.F.R. § 63.7510 (e)]
- c. The permittee must complete the one-time energy assessment specified in Table 3 to this subpart no later than January 31, 2016. [Reg.19.304 and 40 C.F.R. § 63.7510 (e)]
- d. You must submit to the Administrator all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. [Reg.19.304 and 40 C.F.R. § 63.7545 (a)]
- e. As specified in §63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013. [Reg.19.304 and 40 C.F.R. § 63.7545 (b)]
- f. If you are not required to conduct an initial compliance demonstration as specified in §63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8) of this section and must be submitted within 60 days of January 31, 2016. [Reg.19.304 and 40 C.F.R. § 63.7545 (e)]
- g. In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: [Reg.19.304 and 40 C.F.R. § 63.7545 (e)(8)]
  - i. “This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi).” [Reg.19.304 and 40 C.F.R. § 63.7545 (e)(8)(i)]
  - ii. “This facility has had an energy assessment performed according to §63.7530(e).” [Reg.19.304 and 40 C.F.R. § 63.7545 (e)(8)(ii)]
- h. You must keep records according to paragraph (g)(i) of this section. [Reg.19.304 and 40 C.F.R. § 63.7555 (a)]
  - i. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual

compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv). [Reg.19.304 and 40 C.F.R. § 63.7555 (a)(1)]

#### Title VI Provisions

33. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 C.F.R. § 82 Subpart E]
- a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
34. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 C.F.R. § 82 Subpart F]
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to § 82.166. (“MVAC like appliance” as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
35. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 C.F.R. § 82 Subpart A, Production and Consumption Controls.
36. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable

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requirements as specified in 40 C.F.R. § 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.

37. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 C.F.R. § 82 Subpart G.

## SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of Reg.26.304 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated September 14, 2015.

Description	Category
Two (2) 6,000 gallon Naphthenic Petroleum Oil Storage Tanks #1 and #4	A-3
1,000 gallon No. 2 Fuel Oil Day Tank	A-3
10,000 gallon Naphthalic Petroleum Oil Storage Tank #6	A-3
Three (3) 10,000 gallon Aromatic Petroleum Hydrocarbon Storage Tanks #8, #9, and #10	A-3
10,000 gallon Naphthenic Process Oil Blend Tank #29	A-3
Dust Ring Lube Oil Tank #12	A-3
Quality Control and Materials testing Lab	A-5
White Side Wall Protective Painters	A-9
Mold and Bladder Lube Application	A-9
Two (2) 30,000 gallon Fuel Oil Storage Tanks	A-13
Air Compressor #1	A-13
Air Compressor #2	A-13
Process Water #1	A-13
Process Water #2	A-13
Process Water #3	A-13
#1 HVAC Tower	A-13
#2 HVAC Tower	A-13
#3 HVAC Tower	A-13
#4 HVAC Tower	A-13
500 gallon Fire Pump Tank #1	A-3
500 gallon Fire Pump Tank #2	A-3

## SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and Reg.26.701(B)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Reg.26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and Reg.26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
  - a. The date, place as defined in this permit, and time of sampling or measurements;
  - b. The date(s) analyses performed;
  - c. The company or entity performing the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of such analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and Reg.26.701(C)(2)]



6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and Reg.26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Reg.26.2 must certify all required reports. The permittee will send the reports to the address below:

Arkansas Department of Environmental Quality  
Air Division  
ATTN: Compliance Inspector Supervisor  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and Reg.26.701(C)(3)(a)]

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
  - a. For all upset conditions (as defined in Reg.19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
    - i. The facility name and location;
    - ii. The process unit or emission source deviating from the permit limit;
    - iii. The permit limit, including the identification of pollutants, from which deviation occurs;
    - iv. The date and time the deviation started;
    - v. The duration of the deviation;
    - vi. The emissions during the deviation;
    - vii. The probable cause of such deviations;
    - viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and

ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Reg.19.601, Reg.19.602, Reg.26.701(C)(3)(b), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Reg.26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 C.F.R. § 70.6(a)(6)(i) and Reg.26.701(F)(1)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and Reg.26.701(F)(2)]
12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and Reg.26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Reg.26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and Reg.26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 C.F.R. § 70.6(a)(7) and Reg.26.701(G)]
16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and Reg.26.701(H)]
17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and Reg.26.701(I)(1)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and Reg.26.702(A) and (B)]
19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Reg.26.2. [40 C.F.R. § 70.6(c)(1) and Reg.26.703(A)]
20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Reg.26.703(B)]
  - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Reg.26.703(E)(3)]
  - a. The identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status;
  - c. Whether compliance was continuous or intermittent;
  - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
  - e. Such other facts as the Department may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [Reg.26.704(C)]
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
  - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
  - d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
  - a. Such an extension does not violate a federal requirement;
  - b. The permittee demonstrates the need for the extension; and
  - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Reg.18.314(A), Reg.19.416(A), Reg.26.1013(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:
- a. Such a request does not violate a federal requirement;
  - b. Such a request is temporary in nature;
  - c. Such a request will not result in a condition of air pollution;
  - d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
  - e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
  - f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Reg.18.314(B), Reg.19.416(B), Reg.26.1013(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:
- a. The request does not violate a federal requirement;
  - b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
  - c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Reg.18.314(C), Reg.19.416(C), Reg.26.1013(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

## Appendix A

40 C.F.R. § 60, NSPS, Subpart BBB – *Standards of Performance for the Rubber Tire  
Manufacturing Industry*



# ELECTRONIC CODE OF FEDERAL REGULATIONS

**e-CFR data is current as of December 9, 2015**

Title 40 → Chapter I → Subchapter C → Part 60 → Subpart BBB

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

## Subpart BBB—Standards of Performance for the Rubber Tire Manufacturing Industry

### Contents

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SOURCE: 52 FR 34874, Sept. 15, 1987, unless otherwise noted.

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### §60.540 Applicability and designation of affected facilities.

(a) The provisions of this subpart, except as provided in paragraph (b) of this section, apply to each of the following affected facilities in rubber tire manufacturing plants that commence construction, modification, or reconstruction after January 20, 1983: each undertread cementing operation, each sidewall cementing operation, each tread end cementing operation, each bead cementing operation, each green tire spraying operation, each Michelin-A operation, each Michelin-B operation, and each Michelin-C automatic operation.

(b) The owner or operator of each undertread cementing operation and each sidewall cementing operation in rubber tire manufacturing plants that commenced construction, modification, or reconstruction after January 20, 1983, and before September 15, 1987, shall have the option of complying with the alternate provisions in §60.542a. This election shall be irreversible. The alternate provisions in §60.542a do not apply to any undertread cementing operation or sidewall cementing operation that is modified or reconstructed after September 15, 1987. The affected facilities in this paragraph are subject to all applicable provisions of this subpart.

(c) Although the affected facilities listed under §60.540(a) are defined in reference to the production of components of a “tire,” as defined under §60.541(a), the percent emission reduction requirements and VOC use cutoffs specified under §60.542(a)(1), (2), (6), (7)(iii), (7)(iv), (8), (9), and (10) refer to the total amount of VOC used (the amount allocated to the affected facility), including the VOC used in cements and organic solvent-based green tire spray materials for tire types not listed in the §60.541(a) definition of “tire.”

[52 FR 34874, Sept. 15, 1987, as amended at 54 FR 38635, Sept. 19, 1989]

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### §60.541 Definitions.

(a) All terms that are used in this subpart and are not defined below are given the same meaning as in the Act and in subpart A of this part.

*Bead* means rubber-covered strands of wire, wound into a circular form, which ensure a seal between a tire and the rim of the wheel onto which the tire is mounted.

*Bead cementing operation* means the system that is used to apply cement to the bead rubber before or after it is wound into its final circular form. A bead cementing operation consists of a cement application station, such as a dip tank,



spray booth and nozzles, cement trough and roller or swab applicator, and all other equipment necessary to apply cement to wound beads or bead rubber and to allow evaporation of solvent from cemented beads.

*Component* means a piece of tread, combined tread/sidewall, or separate sidewall rubber, or other rubber strip that is combined into the sidewall of a finished tire.

*Drying area* means the area where VOC from applied cement or green tire sprays is allowed to evaporate.

*Enclosure* means a structure that surrounds a VOC (cement, solvent, or spray) application area and drying area, and that captures and contains evaporated VOC and vents it to a control device. Enclosures may have permanent and temporary openings.

*Green tire* means an assembled, uncured tire.

*Green tire spraying operation* means the system used to apply a mold release agent and lubricant to the inside and/or outside of green tires to facilitate the curing process and to prevent rubber from sticking to the curing press. A green tire spraying operation consists of a booth where spraying is performed, the spray application station, and related equipment, such as the lubricant supply system.

*Michelin-A operation* means the operation identified as Michelin-A in the Emission Standards and Engineering Division confidential file as referenced in Docket A-80-9, Entry II-B-12.

*Michelin-B operation* means the operation identified as Michelin-B in the Emission Standards and Engineering Division confidential file as referenced in Docket A-80-9, Entry II-B-12.

*Michelin-C-automatic operation* means the operation identified as Michelin-C-automatic in the Emission Standards and Engineering Division confidential file as referenced in Docket A-80-9, Entry II-B-12.

*Month* means a calendar month or a prespecified period of 28 days or 35 days (utilizing a 4-4-5-week recordkeeping and reporting schedule).

*Organic solvent-based green tire spray* means any mold release agent and lubricant applied to the inside or outside of green tires that contains more than 12 percent, by weight, of VOC as sprayed.

*Permanent opening* means an opening designed into an enclosure to allow tire components to pass through the enclosure by conveyor or other mechanical means, to provide access for permanent mechanical or electrical equipment, or to direct air flow into the enclosure. A permanent opening is not equipped with a door or other means of obstruction of air flow.

*Sidewall cementing operation* means the system used to apply cement to a continuous strip of sidewall component or any other continuous strip component (except combined tread/sidewall component) that is incorporated into the sidewall of a finished tire. A sidewall cementing operation consists of a cement application station and all other equipment, such as the cement supply system and feed and takeaway conveyors, necessary to apply cement to sidewall strips or other continuous strip component (except combined tread/sidewall component) and to allow evaporation of solvent from the cemented rubber.

*Temporary opening* means an opening into an enclosure that is equipped with a means of obstruction, such as a door, window, or port, that is normally closed.

*Tire* means any agricultural, airplane, industrial, mobile home, light-duty truck and/or passenger vehicle tire that has a bead diameter less than or equal to 0.5 meter (m) (19.7 inches) and a cross section dimension less than or equal to 0.325 m (12.8 in.), and that is mass produced in an assembly-line fashion.

*Tread end cementing operation* means the system used to apply cement to one or both ends of the tread or combined tread/sidewall component. A tread end cementing operation consists of a cement application station and all other equipment, such as the cement supply system and feed and takeaway conveyors, necessary to apply cement to tread ends and to allow evaporation of solvent from the cemented tread ends.

*Undertread cementing operation* means the system used to apply cement to a continuous strip of tread or combined tread/sidewall component. An undertread cementing operation consists of a cement application station and all other equipment, such as the cement supply system and feed and takeaway conveyors, necessary to apply cement to tread or combined tread/sidewall strips and to allow evaporation of solvent from the cemented tread or combined tread/sidewall.

*VOC emission control device* means equipment that destroys or recovers VOC.

*VOC emission reduction system* means a system composed of an enclosure, hood, or other device for containment and capture of VOC emissions and a VOC emission control device.

*Water-based green tire spray* means any mold release agent and lubricant applied to the inside or outside of green tires that contains 12 percent or less, by weight, of VOC as sprayed.

(b) Notations used under this subpart are defined below:

$B_o$  = total number of beads cemented at a particular bead cementing affected facility for a month

$C_a$  = concentration of VOC in gas stream in vents after a control device (parts per million by volume)

$C_b$  = concentration of VOC in gas stream in vents before a control device (parts per million by volume)

$C_f$  = concentration of VOC in each gas stream vented directly to the atmosphere from an affected facility or from a temporary enclosure around an affected facility (parts per million by volume)

$D_c$  = density of cement or spray material (grams per liter (lb per gallon))

$D_r$  = density of VOC recovered by an emission control device (grams per liter (lb per gallon))

$E$  = emission control device efficiency, inlet versus outlet (fraction)

$F_c$  = capture efficiency, VOC captured and routed to one control device versus total VOC used for an affected facility (fraction)

$F_o$  = fraction of total mass of VOC used in a month by all facilities served by a common cement or spray material distribution system that is used by a particular affected facility served by the common distribution system

$G$  = monthly average mass of VOC used per tire cemented or sprayed with a water-based green tire spray for a particular affected facility (grams (lb) per tire)

$G_b$  = monthly average mass of VOC used per bead cemented for a particular bead cementing affected facility (grams (lb) per bead)

$L_c$  = volume of cement or spray material used for a month (liters (gallons))

$L_r$  = volume of VOC recovered by an emission control device for a month (liters (gallons))

$M$  = total mass of VOC used for a month by all facilities served by a common cement or spray material distribution system (grams (lb))

$M_o$  = total mass of VOC used at an affected facility for a month (grams (lb))

$M_r$  = mass of VOC recovered by an emission control device for a month (grams (lb))

$N$  = mass of VOC emitted to the atmosphere per tire cemented or sprayed with a water-based green tire spray for an affected facility for a month (grams (lb) per tire)

$N_b$  = mass of VOC emitted per bead cemented for an affected facility for a month (grams (lb) per bead)

$Q_a$  = volumetric flow rate in vents after a control device (dry standard cubic meters (dry standard cubic feet) per hour)

$Q_b$  = volumetric flow rate in vents before a control device (dry standard cubic meters (dry standard cubic feet) per hour)

$Q_f$  = volumetric flow rate of each stream vented directly to the atmosphere from an affected facility or from a temporary enclosure around an affected facility (dry standard cubic meters (dry standard cubic feet) per hour)

$R$  = overall efficiency of an emission reduction system (fraction)

$T_d$  = total number of days in monthly compliance period (days)

$T_o$  = total number of tires cemented or sprayed with water-based green tire sprays at a particular affected facility for a month

$W_o$  = weight fraction of VOC in a cement or spray material.

[52 FR 34874, Sept. 15, 1987, as amended at 65 FR 61764, Oct. 17, 2000]

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#### **§60.542 Standards for volatile organic compounds.**

(a) On and after the date on which the initial performance test, required by §60.8, is completed, but no later than 180 days after initial startup, each owner or operator subject to the provisions of this subpart shall comply with the following conditions:

(1) For each undertread cementing operation:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 3,870 kg (8,531 lb) of VOC per 28 days,

(B) 4,010 kg (8,846 lb) of VOC per 29 days,

- (C) 4,150 kg (9,149 lb) of VOC per 30 days,
- (D) 4,280 kg (9,436 lb) of VOC per 31 days, or
- (E) 4,840 kg (10,670 lb) of VOC per 35 days.

(2) For each sidewall cementing operation:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

- (A) 3,220 kg (7,099 lb) of VOC per 28 days,
- (B) 3,340 kg (7,363 lb) of VOC per 29 days,
- (C) 3,450 kg (7,606 lb) of VOC per 30 days,
- (D) 3,570 kg (7,870 lb) of VOC per 31 days, or
- (E) 4,030 kg (8,885 lb) of VOC per 35 days.

(3) For each tread end cementing operation: Discharge into the atmosphere no more than 10 grams (0.022 lb) of VOC per tire cemented for each month.

(4) For each bead cementing operation: Discharge into the atmosphere no more than 5 grams (0.011 lb) of VOC per bead cemented for each month.

(5) For each green tire spraying operation where only water-based sprays are used:

(i) Discharge into the atmosphere no more than 1.2 grams (0.0026 lb) of VOC per tire sprayed with an inside green tire spray for each month; and

(ii) Discharge into the atmosphere no more than 9.3 grams (0.021 lb) of VOC per tire sprayed with an outside green tire spray for each month.

(6) For each green tire spraying operation where only organic solvent-based sprays are used:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

- (A) 3,220 kg (7,099 lb) of VOC per 28 days,
- (B) 3,340 kg (7,363 lb) of VOC per 29 days,
- (C) 3,450 kg (7,606 lb) of VOC per 30 days,
- (D) 3,570 kg (7,870 lb) of VOC per 31 days, or
- (E) 4,030 kg (8,885 lb) of VOC per 35 days.

(7) For each green tire spraying operation where both water-based and organic solvent-based sprays are used:

(i) Discharge into the atmosphere no more than 1.2 grams (0.0026 lb) of VOC per tire sprayed with a water-based inside green tire spray for each month; and

(ii) Discharge into the atmosphere no more than 9.3 grams (0.021 lb) of VOC per tire sprayed with a water-based outside green tire spray for each month; and either

(iii) Discharge into the atmosphere no more than 25 percent of the VOC used in the organic solvent-based green tire sprays (75 percent emission reduction) for each month; or

(iv) Maintain total (uncontrolled) VOC use for all organic solvent-based green tire sprays less than or equal to the levels specified under paragraph (a)(6)(ii) of this section.

(8) For each Michelin-A operation:

(i) Discharge into the atmosphere no more than 35 percent of the VOC used (65 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 1,570 kg (3,461 lb) of VOC per 28 days,

(B) 1,630 kg (3,593 lb) of VOC per 29 days,

(C) 1,690 kg (3,726 lb) of VOC per 30 days,

(D) 1,740 kg (3,836 lb) of VOC per 31 days, or

(E) 1,970 kg (4,343 lb) of VOC per 35 days.

(9) For each Michelin-B operation:

(i) Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:

(A) 1,310 kg (2,888 lb) of VOC per 28 days,

(B) 1,360 kg (2,998 lb) of VOC per 29 days,

(C) 1,400 kg (3,086 lb) of VOC per 30 days,

(D) 1,450 kg (3,197 lb) of VOC per 31 days, or

(E) 1,640 kg (3,616 lb) of VOC per 35 days.

(10) For each Michelin-C-automatic operation:

(i) Discharge into the atmosphere no more than 35 percent of the VOC used (65 percent emission reduction) for each month; or

(ii) Maintain total (uncontrolled) VOC use less than or equal to the levels specified under paragraph (a)(8)(ii) of this section.

[52 FR 34874, Sept. 15, 1987, as amended at 65 FR 61764, Oct. 17, 2000]

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#### **§60.542a Alternate standard for volatile organic compounds.**

(a) On and after the date on which the initial performance test, required by §60.8, is completed, but no later than 180 days after September 19, 1989, each owner or operator subject to the provisions in §60.540(b) shall not cause to be discharged into the atmosphere more than: 25 grams (0.055 lb) of VOC per tire processed for each month if the operation uses 25 grams (0.055 lb) or less of VOC per tire processed and does not employ a VOC emission reduction system.

(b) [Reserved]

[54 FR 38635, Sept. 19, 1989, as amended at 65 FR 61765, Oct. 17, 2000]

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#### **§60.543 Performance test and compliance provisions.**

(a) Section 60.8(d) does not apply to the monthly performance test procedures required by this subpart. Section 60.8(d) does apply to initial performance tests and to the performance tests specified under paragraphs (b)(2) and (b)(3) of this section. Section 60.8(f) does not apply when Method 24 is used.

(b) Performance tests shall be conducted as follows:

(1) The owner or operator of an affected facility shall conduct an initial performance test, as required under §60.8(a), except as described under paragraph (j) of this section. The owner or operator of an affected facility shall thereafter conduct a performance test each month, except as described under paragraphs (b)(4), (g)(1), and (j) of this section. Initial and monthly performance tests shall be conducted according to the procedures in this section.

(2) The owner or operator of an affected facility who elects to use a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), as described under paragraphs (f) and (g) of this section, shall repeat the performance test when directed by the Administrator or when the owner or operator elects to operate the capture system or control device at conditions different from the most recent determination of overall reduction efficiency. The performance test shall be conducted in accordance with the procedures described under paragraphs (f)(2) (i) through (iv) of this section.

(3) The owner or operator of an affected facility who seeks to comply with the equipment design and performance specifications, as described under paragraph (j) of this section, shall repeat the performance test when directed by the Administrator or when the owner or operator elects to operate the capture system or control device at conditions different from the most recent determination of control device efficiency or measurement of capture system retention time or face velocity. The performance test shall be conducted in accordance with the procedures described under paragraph (f)(2)(ii) of this section.

(4) The owner or operator of each tread end cementing operation and each green tire spraying operation using only water-based sprays (inside and/or outside) containing less than 1.0 percent, by weight, of VOC is not required to conduct a monthly performance test as described in paragraph (d) of this section. In lieu of conducting a monthly performance test, the owner or operator of each tread end cementing operation and each green tire spraying operation shall submit formulation data or the results of Method 24 analysis annually to verify the VOC content of each tread end cement and each green tire spray material, provided the spraying formulation has not changed during the previous 12 months. If the spray material formulation changes, formulation data or Method 24 analysis of the new spray shall be conducted to determine the VOC content of the spray and reported within 30 days as required under §60.546(j).

(c) For each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation where the owner or operator seeks to comply with the uncontrolled monthly VOC use limits, the owner or operator shall use the following procedure to determine compliance with the applicable (depending upon duration of compliance period) uncontrolled monthly VOC use limit specified under §60.542(a) (1)(ii), (2)(ii), (6)(ii), (7)(iv), (8)(ii), (9)(ii), and (10)(ii). If both undertread cementing and sidewall cementing are performed at the same affected facility during a month, then the kg/mo limit specified under §60.542(a)(1)(ii) shall apply for that month.

(1) Determine the density and weight fraction VOC (including dilution VOC) of each cement or green tire spray from its formulation or by analysis of the cement or green tire spray using Method 24. If a dispute arises, the Administrator may require an owner or operator who used formulation data to analyze the cement or green tire spray using Method 24.

(2) Calculate the total mass of VOC used at the affected facility for the month ( $M_o$ ) by the following procedure:

(i) For each affected facility for which cement or green tire spray is delivered in batch or via a distribution system that serves only the affected facility:

$$M_o = \sum_{i=1}^a L_{c_i} D_{c_i} W_{o_i}$$

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Where:

“a” equals the number of different cements or green tire sprays used during the month that are delivered in batch or via a distribution system that serves only a single affected facility.

(ii) For each affected facility for which cement or green tire spray is delivered via a common distribution system that also serves other affected or existing facilities:

(A) Calculate the total mass of VOC used for all of the facilities served by the common distribution system for the month ( $M$ ):

$$M = \sum_{i=1}^b L_{c_i} D_{c_i} W_{o_i}$$

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Where:

“b” equals the number of different cements or green tire sprays used during the month that are delivered via a common distribution system that also serves other affected or existing facilities.

(B) Determine the fraction ( $F_o$ ) of  $M$  used at the affected facility by comparing the production records and process specifications for the material cemented or sprayed at the affected facility for the month to the production records and process specifications for the material cemented or sprayed at all other facilities served by the common distribution system for the month or by another procedure acceptable to the Administrator.

(C) Calculate the total monthly mass of VOC used at the affected facility for the month ( $M_o$ ):

$$M_o = MF_o$$

(3) Determine the time duration of the monthly compliance period ( $T_d$ ).

(d) For each tread end cementing operation and each green tire spraying operation where water-based cements or sprays containing 1.0 percent, by weight, of VOC or more are used (inside and/or outside) that do not use a VOC emission reduction system, the owner or operator shall use the following procedure to determine compliance with the VOC emission per tire limit specified under §60.542 (a)(3), (a)(5)(i), (a)(5)(ii), (a)(7)(i), and (a)(7)(ii).

(1) Determine the density and weight fraction VOC as specified under paragraph (c)(1) of this section.

(2) Calculate the total mass of VOC used at the affected facility for the month ( $M_o$ ) as specified under paragraph (c)(2) of this section.

(3) Determine the total number of tires cemented or sprayed at the affected facility for the month ( $T_o$ ) by the following procedure:

(i) For a tread end cementing operation,  $T_o$  equals the number of tread or combined tread/sidewall components that receive an application of tread end cement for the month.

(ii) For a green tire spraying operation that uses water-based inside green tire sprays,  $T_o$  equals the number of green tires that receive an application of water-based inside green tire spray for the month.

(iii) For a green tire spraying operation that uses water-based outside green tire sprays,  $T_o$  equals the number of green tires that receive an application of water-based outside green tire spray for the month.

(4) Calculate the mass of VOC used per tire cemented or sprayed at the affected facility for the month ( $G$ ):

$$G = \frac{M_o}{T_o}$$

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(5) Calculate the mass of VOC emitted per tire cemented or sprayed at the affected facility for the month ( $N$ ):

$$N = G$$

(e) For each bead cementing operation that does not use a VOC emission reduction system, the owner or operator shall use the following procedure to determine compliance with the VOC emission per bead limit specified under §60.542 (a)(4).

(1) Determine the density and weight fraction VOC as specified under paragraph (c)(1) of this section.

(2) Calculate the total mass of VOC used at the affected facility for the month ( $M_o$ ) as specified under paragraph (c)(2) of this section.

(3) Determine the number of beads cemented at the affected facility during the month ( $B_o$ ) using production records;  $B_o$  equals the number of beads that receive an application of cement for the month.

(4) Calculate the mass of VOC used per bead cemented at the affected facility for the month ( $G_b$ ):

$$G_b = \frac{M_o}{B_o}$$

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(5) Calculate the mass of VOC emitted per bead cemented at the affected facility for the month ( $N_b$ ):

$$N_b = G_b$$

(f) For each tread end cementing operation and each bead cementing operation that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), the owner or operator shall use the following procedure to determine compliance with the emission limit specified under §60.542(a) (3) and (4).

(1) Calculate the mass of VOC used per tire cemented at the affected facility for the month ( $G$ ), as specified under paragraphs (d) (1) through (4) of this section, or mass of VOC used per bead cemented at the affected facility for the month ( $G_b$ ), as specified under paragraphs (e) (1) through (4) of this section.

(2) Calculate the mass of VOC emitted per tire cemented at the affected facility for the month (N) or mass of VOC emitted per bead cemented for the affected facility for the month (N<sub>b</sub>):

$$N = G (1-R)$$

$$N_b = G_b (1-R)$$

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed under paragraphs (f) (2) (i) through (iv) of this section. After the initial performance test, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test. No monthly performance tests are required. The performance test shall be repeated during conditions described under paragraph (b)(2) of this section.

(i) The owner or operator of an affected facility shall construct a temporary enclosure around the application and drying areas during the performance test for the purpose of capturing fugitive VOC emissions. The enclosure must be maintained at a negative pressure to ensure that all evaporated VOC are measurable. Determine the fraction (F<sub>c</sub>) of total VOC used at the affected facility that enters the control device:

$$F_c = \frac{\sum_{i=1}^m C_{b_i} Q_{b_i}}{\sum_{i=1}^m C_{b_i} Q_{b_i} + \sum_{j=1}^n C_{f_j} Q_{f_j}}$$

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Where:

"m" is the number of vents from the affected facility to the control device, and "n" is the number of vents from the affected facility to the atmosphere and from the temporary enclosure.

(ii) Determine the destruction efficiency of the control device (E) by using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the control device:

$$E = \frac{\sum_{i=1}^m C_{b_i} Q_{b_i} - \sum_{j=1}^p C_{a_j} Q_{a_j}}{\sum_{i=1}^m C_{b_i} Q_{b_i}}$$

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Where:

"m" is the number of vents from the affected facility to the control device, and "p" is the number of vents after the control device.

(iii) Determine the overall reduction efficiency (R):

$$R = EF_c$$

(iv) The owner or operator of an affected facility shall have the option of substituting the following procedure as an acceptable alternative to the requirements prescribed under paragraph (f)(2)(i) of this section. This alternative procedure is acceptable only in cases where a single VOC is used and is present in the capture system. The average capture efficiency value derived from a minimum of three runs shall constitute a test.

(A) For each run, "i," measure the mass of the material containing a single VOC used. This measurement shall be made using a scale that has both a calibration and a readability to within 1 percent of the mass used during the run. This measurement may be made by filling the direct supply reservoir (e.g., trough, tray, or drum that is integral to the operation) and related application equipment (e.g., rollers, pumps, hoses) to a marked level at the start of the run and then refilling to the same mark from a more easily weighed container (e.g., separate supply drum) at the end of the run. The change in mass of the supply drum would equal the mass of material used from the direct supply reservoir. Alternatively, this measurement may be made by weighing the direct supply reservoir at the start and end of the run or by weighing the direct supply reservoir and related application equipment at the start and end of the run. The change in mass would equal the mass of the material used in the run. If only the direct supply reservoir is weighed, the amount of material in or on the related application equipment must be the same at the start and end of the run. All additions of VOC containing material made to the direct supply reservoir during a run must be properly accounted for in determining the mass of material used during that run.

(B) For each run, "i," measure the mass of the material containing a single VOC which is present in the direct supply reservoir and related application equipment at the start of the run, unless the ending weight fraction VOC in the material is greater than or equal to 98.5 percent of the starting weight fraction VOC in the material, in which case, this measurement is not required. This measurement may be made directly by emptying the direct supply reservoir and related application equipment and then filling them to a marked level from an easily weighed container (e.g. separate supply drum). The change in mass of the supply drum would equal the mass of material in the filled direct supply reservoir and related application equipment. Alternatively, this measurement may be made by weighing the direct supply reservoir and related

application equipment at the start of the run and subtracting the mass of the empty direct supply reservoir and related application equipment (tare weight).

(C) For each run, "i," the starting weight fraction VOC in the material shall be determined by Method 24 analysis of a sample taken from the direct supply reservoir at the beginning of the run.

(D) For each run, "i," the ending weight fraction VOC in the material shall be determined by Method 24 analysis of a sample taken from the direct supply reservoir at the end of the run.

(E) For each run, "i," in which the ending weight fraction VOC in the material is greater than or equal to 98.5 percent of the starting weight fraction VOC in the material, calculate the mass of the single VOC used ( $M_i$ ) by multiplying the mass of the material used in the run by the starting weight fraction VOC of the material used in the run.

(F) For each run, "i," in which the ending weight fraction VOC in the material is less than 98.5 percent of the starting weight fraction VOC in the material, calculate the mass of the single VOC used ( $M_i$ ) as follows:

(1) Calculate the mass of VOC present in the direct supply reservoir and related application equipment at the start of the run by multiplying the mass of material in the direct supply reservoir and related application equipment at the start of the run by the starting weight fraction VOC in the material for that run.

(2) Calculate the mass of VOC present in the direct supply reservoir and related application equipment at the end of the run by multiplying the mass of material in the direct supply reservoir and related application equipment at the end of the run by the ending weight fraction VOC in the material for that run. The mass of material in the direct supply reservoir and related application equipment at the end of the run shall be calculated by subtracting the mass of material used in the run from the mass of material in the direct supply reservoir and related application equipment at the start of the run.

(3) The mass of the single VOC used ( $M_i$ ) equals the mass of VOC present in the direct supply reservoir and related application equipment at the start of the run minus the mass of VOC present in the direct supply reservoir and related application equipment at the end of the run.

(G) If Method 25A is used to determine the concentration of the single VOC in the capture system, then calculate the capture efficiency ( $FC_i$ ) for each run, "i," as follows:

$$FC_i = \frac{C_i \frac{W}{V} Q_i}{(M_i) (10^6)}$$

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Where:

$C_i$  = Average concentration of the single VOC in the capture system during run "i" (parts per million by volume) corrected for background VOC (see §60.547(a)(5)).

$W$  = Molecular weight of the single VOC, mg/mg-mole (lb/lb-mole).

$V$  = The volume occupied by one mole of ideal gas at standard conditions [20 °C, 760 mm Hg] on a wet basis,  $2.405 \times 10^{-5} \text{ m}^3/\text{mg-mole}$  (385.3 ft<sup>3</sup>/lb-mole).

$Q_i$  = Volumetric flow in the capture system during run i, on a wet basis, adjusted to standard conditions, m<sup>3</sup> (ft<sup>3</sup>) (see §60.547(a)(5)).

$10^6$  = ppm per unity.

$M_i$  = Mass of the single VOC used during run i, mg (lb).

(H) If Method 25 is used to determine the concentration of the single VOC in the capture system, then calculate the capture efficiency ( $FC_i$ ) for each run, "i," as follows:

$$FC_i = \frac{C_i}{(NC)(10^6)} \frac{(W)(Q_i)}{(M_i)(V)}$$

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Where:  $C_i$  = Average concentration of the single VOC in the capture system during run "i" (parts per million, as carbon, by volume) corrected for background VOC (see §60.547(a)(5)).

$W$  = Molecular weight of the single VOC, mg/mg-mole (lb/lb-mole).

$V$  = The volume occupied by one mole of ideal gas at standard conditions [20 °C, 760 mm Hg] on a wet basis,  $2.405 \times 10^{-5} \text{ m}^3/\text{mg-mole}$  (385.3 ft<sup>3</sup>/lb-mole).



$Q_i$  = Volumetric flow in the capture system during run i, on a wet basis, adjusted to standard conditions,  $m^3 (ft^3)$  (see §60.547(a)(5)).

$10^6$  = ppm per unity.

$M_i$  = Mass of the single VOC used during run i, mg (lb).

NC = Number of carbon atoms in one molecule of the single VOC.

(I) Calculate the average capture efficiency value,  $F_c$  as follows:

$$F_c = \frac{\sum_{i=1}^n F_{Ci}}{n}$$

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Where:

“n” equals the number of runs made in the test (n 3). In cases where an alternative procedure in this paragraph is used, the requirements in paragraphs (f)(2) (ii) and (iii) of this section remain unchanged.

(g) For each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), the owner or operator shall use the following procedure to determine compliance with the percent emission reduction requirement specified under §60.542 (a) (1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), and (10)(i).

(1) For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed under paragraphs (f)(2) (i) through (iii) of this section. The performance test shall be repeated during conditions described under paragraph (b)(2) of this section. No monthly performance tests are required.

(h) For each tread end cementing operation and each bead cementing operation that uses a VOC emission reduction system with a control device that recovers VOC (e.g., carbon adsorber), the owner or operator shall use the following procedure to determine compliance with the emission limit specified under §60.542(a) (3) and (4).

(1) Calculate the mass of VOC used per tire cemented at the affected facility for the month (G), as specified under paragraphs (d) (1) through (4) of this section, or mass of VOC used per bead cemented at the affected facility for the month ( $G_b$ ), as specified under paragraphs (e) (1) through (4) of this section.

(2) Calculate the total mass of VOC recovered from the affected facility for the month ( $M_r$ ):

$$M_r = L_r D_r$$

(3) Calculate the overall reduction efficiency for the VOC emission reduction system (R) for the month:

$$R = \frac{M_r}{M_o}$$

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(4) Calculate the mass of VOC emitted per tire cemented at the affected facility for the month (N) or mass of VOC emitted per bead cemented at the affected facility for the month ( $N_b$ ):

$$N = G (1-R)$$

$$N_b = G_b (1-R)$$

(i) For each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation that uses a VOC emission reduction system with a control device that recovers (VOC) (e.g., carbon adsorber), the owner or operator shall use the following procedure to determine compliance with the percent reduction requirement specified under §60.542(a) (1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), and (10)(i).

(1) Determine the density and weight fraction VOC as specified under paragraph (c)(1) of this section.

(2) Calculate the total mass of VOC used at the affected facility for the month ( $M_o$ ) as described under paragraph (c) (2) of this section.

(3) Calculate the total mass of VOC recovered from the affected facility for the month ( $M_r$ ) as described under paragraph (h)(2) of this section.

(4) Calculate the overall reduction efficiency for the VOC emission reduction system (R) for the month as described under paragraph (h)(3) of this section.

(j) Rather than seeking to demonstrate compliance with the provisions of §60.542(a) (1)(i), (2)(i), (6)(i), (7)(iii), or (9)(i) using the performance test procedures described under paragraphs (g) and (i) of this section, an owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation that use a VOC emission reduction system may seek to demonstrate compliance by meeting the equipment design and performance specifications listed under paragraphs (j)(1), (2), and (4) through (6) or under paragraphs (j)(1) and (3) through (6) of this section, and by conducting a control device efficiency performance test to determine compliance as described under paragraph (j)(7) of this section. The owner or operator shall conduct this performance test of the control device efficiency no later than 180 days after initial startup of the affected facility, as specified under §60.8(a). Meeting the capture system design and performance specifications, in conjunction with operating a 95 percent efficient control device, is an acceptable means of demonstrating compliance with the standard. Therefore, the requirement for the initial performance test on the enclosure, as specified under §60.8(a), is waived. No monthly performance tests are required.

(1) For each undertread cementing operation, each sidewall cementing operation, and each Michelin-B operation, the cement application and drying area shall be contained in an enclosure that meets the criteria specified under paragraphs (j) (2), (4), and (5) of this section; for each green tire spraying operation where organic solvent-based sprays are used, the spray application and drying area shall be contained in an enclosure that meets the criteria specified under paragraphs (j) (3), (4), and (5) of this section.

(2) The drying area shall be enclosed between the application area and the water bath or to the extent necessary to contain all tire components for at least 30 seconds after cement application, whichever distance is less.

(3) Sprayed green tires shall remain in the enclosure for a minimum of 30 seconds after spray application.

(4) A minimum face velocity of 30.5 meters (100 feet) per minute shall be maintained continuously through each permanent opening into the enclosure when all temporary enclosure openings are closed. The cross-sectional area of each permanent opening shall be divided into at least 12 equal areas, and a velocity measurement shall be performed at the centroid of each equal area with an anemometer or similar velocity monitoring device; the face velocity of each permanent opening is the average value of the velocity measurements taken. The monitoring device shall be calibrated and operated according to the manufacturer's instructions.

Temporary enclosure openings shall remain closed at all times except when worker access is necessary.

(5) The total area of all permanent openings into the enclosure shall not exceed the area that would be necessary to maintain the VOC concentration of the exhaust gas stream at 25 percent of the lower explosive limit (LEL) under the following conditions:

- (i) The facility is operating at the maximum solvent use rate;
- (ii) The face velocity through each permanent opening is 30.5 meters (100 feet) per minute; and
- (iii) All temporary openings are closed.

(6) All captured VOC are ducted to a VOC emission control device that is operated on a continuous basis and that achieves at least a 95 percent destruction or recovery efficiency.

(7) The efficiency of the control device (E) for the initial performance test is determined by using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the control device as described under paragraph (f)(2)(ii) of this section. The control device efficiency shall be redetermined during conditions specified under paragraph (b)(3) of this section.

(k) Each owner or operator of an affected facility who initially elected to be subject to the applicable percent emission reduction requirement specified under §60.542(a)(1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), or (10)(i) and who later seeks to comply with the applicable total (uncontrolled) monthly VOC use limit specified under §60.542(a)(1)(ii), (2)(ii), (6)(ii), (7)(iv), (8)(ii), (9)(ii), or (10)(ii) shall demonstrate, using the procedures described under paragraph (c) of this section, that the total VOC use at the affected facility has not exceeded the applicable total (uncontrolled) monthly VOC use limit during each of the last 6 months of operation. The owner or operator shall be subject to the applicable percent emission reduction requirement until the conditions of this paragraph and §60.546(h) are satisfied.

(l) In determining compliance for each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation, each Michelin-A operation, each Michelin-B operation, and each Michelin-C-automatic operation, the owner or operator shall include all the VOC used, recovered, or destroyed from cements and organic solvent-based green tire sprays including those cements or sprays used for tires other than those defined under §60.541 (a).

(m) In determining compliance for each tread end cementing operation, each bead cementing operation, and each green tire spraying operation, the owner or operator shall include only those tires defined under §60.541(a) when determining  $T_o$  and  $B_o$ .

(n) For each undertread cementing operation and each sidewall cementing operation that does not use a VOC emission reduction system, the owner or operator shall use the following procedure to determine compliance with the VOC emission per tire limit specified in §60.542a:

(1) Calculate the total mass of VOC ( $M_o$ ) used at the affected facility for the month by the following procedure.

(i) For each affected facility for which cement is delivered in batch or via a distribution system which serves only that affected facility:

$$M_o = \sum_{i=1}^n L_{ci} D_{ci} W_{oi}$$

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Where: "n" equals the number of different cements or sprays used during the month.

(ii) For each affected facility for which cement is delivered via a common distribution system which also serves other affected or existing facilities.

(A) Calculate the total mass ( $M$ ) of VOC used for all of the facilities served by the common distribution system for the month:

$$M = \sum_{i=1}^n L_{ci} D_{ci} W_{oi}$$

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Where: "n" equals the number of different cements or sprays used during the month.

(B) Determine the fraction ( $F_o$ ) of "M" used by the affected facility by comparing the production records and process specifications for the material cemented at the affected facility for the month to the production records and process specifications for the material cemented at all other facilities served by the common distribution system for the month or by another procedure acceptable to the Administrator.

(C) Calculate the total monthly mass of VOC ( $M_o$ ) used at the affected facility:

$$M_o = MF_o$$

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(2) Determine the total number of tires ( $T_o$ ) processed at the affected facility for the month by the following procedure.

(i) For undertread cementing,  $T_o$  equals the number of tread or combined tread/sidewall components which receive an application of undertread cement.

(ii) For sidewall cementing,  $T_o$  equals the number of sidewall components which receive an application of sidewall cement, divided by 2.

(3) Calculate the mass of VOC used per tire processed ( $G$ ) by the affected facility for the month:

$$G = \frac{M_o}{T_o}$$

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(4) Calculate the mass of VOC emitted per tire processed ( $N$ ) for the affected facility for the month:

$$N = G$$

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(5) Where the value of the mass of VOC emitted per tire processed ( $N$ ) is less than or equal to the VOC emission per tire limit specified under §60.542a, the affected facility is in compliance.

[52 FR 34874, Sept. 15, 1987; 52 FR 37874, Oct. 9, 1987, as amended at 54 FR 38635, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

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#### **§60.544 Monitoring of operations.**

(a) Each owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:

(1) Where a thermal incinerator is used for VOC emission reduction, a temperature monitoring device equipped with a continuous recorder for the temperature of the gas stream in the combustion zone of the incinerator. The temperature monitoring device shall have an accuracy of 1 percent of the temperature being measured in °C or  $\pm 0.5$  °C, whichever is greater.

(2) Where a catalytic incinerator is used for VOC emission reduction, temperature monitoring devices, each equipped with a continuous recorder, for the temperature in the gas stream immediately before and after the catalyst bed of the incinerator. The temperature monitoring devices shall have an accuracy of 1 percent of the temperature being measured in °C or  $\pm 0.5$  °C, whichever is greater.

(3) For an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation where a carbon adsorber is used to meet the performance requirements specified under §60.543(j)(6), an organics monitoring device used to indicate the concentration level of organic compounds based on a detection principle such as infrared, photoionization, or thermal conductivity, equipped with a continuous recorder, for the outlet of the carbon bed.

(b) An owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation where a VOC recovery device other than a carbon adsorber is used to meet the performance requirements specified under §60.543(j)(6), shall provide to the Administrator information describing the operation of the control device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

[52 FR 34874, Sept. 15, 1987, as amended at 65 FR 61765, Oct. 17, 2000]

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#### **§60.545 Recordkeeping requirements.**

(a) Each owner or operator of an affected facility that uses a thermal incinerator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation for which the average temperature of the gas stream in the combustion zone was more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance.

(b) Each owner or operator of an affected facility that uses a catalytic incinerator shall maintain continuous records of the temperature of the gas stream both upstream and downstream of the catalyst bed of the incinerator, records of all 3-hour periods of operation for which the average temperature measured before the catalyst bed is more than 28 °C (50 °F) below the gas stream temperature measured before the catalyst bed during the most recent determination of destruction efficiency of the catalytic incinerator that demonstrated that the affected facility was in compliance, and records of all 3-hour periods for which the average temperature difference across the catalyst bed is less than 80 percent of the temperature difference measured during the most recent determination of the destruction efficiency of the catalytic incinerator that demonstrated that the affected facility was in compliance.

(c) Each owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation that uses a carbon adsorber to meet the requirements specified under §60.543(j)(6) shall maintain continuous records of all 3-hour periods of operation during which the average VOC concentration level or reading of organics in the exhaust gases is more than 20 percent greater than the exhaust gas concentration level or reading measured by the organics monitoring device during the most recent determination of the recovery efficiency of the carbon adsorber that demonstrated that the affected facility was in compliance.

(d) Each owner or operator of an undertread cementing operation, sidewall cementing operation, green tires spraying operation where organic solvent-based sprays are used, Michelin-A operation, Michelin-B operation, or Michelin-C-automatic operation who seeks to comply with a specified VOC monthly usage limit shall maintain records of monthly VOC use and the number of days in each compliance period.

(e) Each owner or operator that is required to conduct monthly performance tests, as specified under §60.543(b)(1), shall maintain records of the results of all monthly tests.

(f) Each owner or operator of a tread end cementing operation and green tire spraying operation using water-based cements or sprays containing less than 1.0 percent by weight of VOC, as specified under §60.543(b)(4), shall maintain records of formulation data or the results of Method 24 analysis conducted to verify the VOC content of the spray.

[52 FR 34874, Sept. 15, 1987, as amended at 54 FR 38637, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

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#### **§60.546 Reporting requirements.**

(a) Each owner or operator subject to the provisions of this subpart, at the time of notification of the anticipated initial startup of an affected facility pursuant to §60.7(a)(2), shall provide a written report to the Administrator declaring for each undertread cementing operation, each sidewall cementing operation, each green tire spraying operation where organic solvent-based sprays are used, each Michelin-A operation, each Michelin-B operation, and each Michelin-C automatic operation the emission limit he intends to comply with and the compliance method (where §60.543(j) is applicable) to be employed.

(b) Each owner or operator subject to the provisions of this subpart, at the time of notification of the anticipated initial startup of an affected facility pursuant to §60.7(a)(2), shall specify the monthly schedule (each calendar month or a 4-4-5-week schedule) to be used in making compliance determinations.

(c) Each owner or operator subject to the provisions of this subpart shall report the results of all initial performance tests, as required under §60.8(a), and the results of the performance tests required under §60.543 (b)(2) and (b)(3). The following data shall be included in the report for each of the above performance tests:

(1) For each affected facility for which the owner or operator seeks to comply with a VOC monthly usage limit specified under §60.542(a): The monthly mass of VOC used ( $M_o$ ) and the number of days in the compliance period ( $T_d$ ).

(2) For each affected facility that seeks to comply with a VOC emission limit per tire or per bead specified under §60.542(a) without the use of a VOC emission reduction system: the mass of VOC used ( $M_o$ ), the number of tires cemented or sprayed ( $T_o$ ), the mass of VOC emitted per tire cemented or sprayed ( $N$ ), the number of beads cemented ( $B_o$ ), and the mass of VOC emitted per bead cemented ( $N_b$ ).

(3) For each affected facility that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator) to comply with a VOC emission limit per tire or per bead specified under §60.542(a): The mass of VOC used ( $M_o$ ), the number of tires cemented or sprayed ( $T_o$ ), the mass of VOC emitted per tire cemented or sprayed ( $N$ ), the number of beads cemented ( $B_o$ ), the mass of VOC emitted per bead cemented ( $N_b$ ), the mass of VOC used per tire cemented or sprayed ( $G$ ), the mass of VOC per bead cemented ( $G_b$ ), the emission control device efficiency ( $E$ ), the capture system efficiency ( $F_c$ ), the face velocity through each permanent opening for the capture system with the temporary openings closed, and the overall system emission reduction ( $R$ ).

(4) For each affected facility that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator) to comply with a percent emission reduction requirement specified under §60.542(a): The emission control device efficiency ( $E$ ), the capture system efficiency ( $F_c$ ), the face velocity through each permanent opening in the capture system with the temporary openings closed, and the overall system emission reduction ( $R$ ).

(5) For each affected facility that uses a carbon adsorber to comply with a VOC emission limit per tire or per bead specified under §60.542(a): The mass of VOC used ( $M_o$ ), the number of tires cemented or sprayed ( $T_o$ ), the mass of VOC used per tire cemented or sprayed ( $G$ ), the number of beads cemented ( $B_o$ ), the mass of VOC used per bead ( $G_b$ ), the mass of VOC recovered ( $M_r$ ), the overall system emission reduction ( $R$ ), the mass of VOC emitted per tire cemented or sprayed ( $N$ ), and the mass of VOC emitted per bead cemented ( $N_b$ ).

(6) For each affected facility that uses a VOC emission reduction system with a control device that recovers VOC (e.g., carbon adsorber) to comply with a percent emission reduction requirement specified under §60.542(a): The mass of VOC used ( $M_o$ ), the mass of VOC recovered ( $M_r$ ), and the overall system emission reduction ( $R$ ).

(7) For each affected facility that elects to comply with the alternate limit specified under §60.542a: The mass of VOC used ( $M_o$ ), the number of tires processed ( $T_o$ ), and the mass of VOC emitted per tire processed ( $N$ ).

(d) Each owner or operator of an undertread cementing operation, sidewall cementing operation, green tire spraying operation where organic solvent-based sprays are used, or Michelin-B operation who seeks to comply with the requirements described under §60.543(j) shall include in the initial compliance report a statement specifying, in detail, how each of the equipment design and performance specifications has been met. The initial compliance report also shall include the following data: The emission control device efficiency ( $E$ ), the face velocity through each permanent enclosure opening with all temporary enclosure openings closed, the total area of all permanent enclosure openings, the total area of all temporary enclosure openings, the maximum solvent use rate (kg/hr or lb/hr), the type(s) of VOC used, the lower explosive limit (LEL) for each VOC used, and the length of time each component is enclosed after application of cement or spray material.

(e) Each owner or operator of an affected facility shall include the following data measured by the required monitoring device(s), as applicable, in the report for each performance test specified under paragraph (c) of this section.

(1) The average combustion temperature measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each thermal incinerator.

(2) The average temperature before and after the catalyst bed measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each catalytic incinerator.

(3) The concentration level or reading indicated by the organics monitoring device at the outlet of the adsorber, measured at least every 15 minutes and averaged over the performance test period of carbon adsorber recovery efficiency while the vent stream is normally routed and constituted.

(4) The appropriate data to be specified by the Administrator where a VOC recovery device other than a carbon adsorber is used.

(f) Once every 6 months each owner or operator subject to the provisions of §60.545 shall report, as applicable:

(1) Each monthly average VOC emission rate that exceeds the VOC emission limit per tire or per bead specified under §60.542(a), as applicable for the affected facility.

(2) Each monthly average VOC use rate that exceeds the monthly VOC usage limit specified under §60.542(a), as applicable for the affected facility.

(3) Each monthly average VOC emission reduction efficiency for a VOC recovery device (e.g., carbon adsorber) less than the percent efficiency limit specified under §60.542(a), as applicable for the affected facility.

(4) Each 3-hour period of operation for which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance.

(5) Each 3-hour period of operation for which the average temperature of the gas stream immediately before the catalyst bed of a catalytic incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the gas stream temperature measured before the catalyst bed during the most recent determination of the destruction efficiency of the catalyst incinerator that demonstrated that the affected facility was in compliance, and any 3-hour period for which the average temperature difference across the catalyst bed (i.e., the difference between the temperatures of the gas stream immediately before and after the catalyst bed), as measured by the temperature monitoring device, is less than 80 percent of the temperature difference measured during the most recent determination of the destruction efficiency of the catalytic incinerator that demonstrated that the affected facility was in compliance.

(6) Each 3-hour period of operation during which the average concentration level or reading of VOC's in the exhaust gases from a carbon adsorber is more than 20 percent greater than the exhaust gas concentration level or reading measured by the organics monitoring device during the most recent determination of the recovery efficiency of the carbon adsorber that demonstrated that the affected facility was in compliance.

(g) The requirements for semiannual reports remain in force until and unless EPA, in delegating enforcement authority to a State under Section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with these requirements, provided that they comply with the requirements established by the State.

(h) Each owner or operator of an affected facility who initially elected to be subject to the applicable percent emission reduction requirement specified under §60.542(a) and who later seeks to comply with the applicable total (uncontrolled) monthly VOC use limit specified under §60.542(a) and who has satisfied the provisions specified under §60.543(k) shall furnish the Administrator written notification no less than 30 days in advance of the date when he intends to be subject to the applicable VOC use limit instead of the applicable percent emission reduction requirement.

(i) The owner or operator of each undertread cementing operation and each sidewall cementing operation who qualifies for the alternate provisions as described in §60.542a, shall furnish the Administrator written notification of the election no less than 60 days after September 19, 1989.

(j) The owner or operator of each tread end cementing operation and each green tire spraying (inside and/or outside) operation using water-based sprays containing less than 1.0 percent, by weight, of VOC as described in §60.543(b)(1) shall furnish the Administrator, within 60 days initially and annually thereafter, formulation data or Method 24 results to verify the VOC content of the water-based sprays in use. If the spray formulation changes before the end of the 12-month period, formulation data or Method 24 results to verify the VOC content of the spray shall be reported within 30 days of the change.

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#### **§60.547 Test methods and procedures.**

(a) The test methods in appendix A to this part, except as provided under §60.8(b), shall be used to determine compliance with §60.542(a) as follows:

(1) Method 24 or formulation data for the determination of the VOC content of cements or green tire spray materials. In the event of dispute, Method 24 shall be the reference method. For Method 24, the cement or green tire spray sample shall be a 1-liter sample collected in a 1-liter container at a point where the sample will be representative of the material as applied in the affected facility.

(2) Method 25 as the reference method for the determination of the VOC concentrations in each stack, both entering and leaving an emission control device. The owner or operator shall notify the Administrator at least 30 days in advance of any test by Method 25. For Method 25, the sampling time for each of three runs shall be at least 1 hour. Method 1 shall be used to select the sampling site, and the sampling point shall be the centroid of the duct or at a point no closer to the walls than 1.0 meter (3.3 feet). The minimum sample volume shall be 0.003 dry standard cubic meter (dscm) (0.11 dry standard cubic feet (dscf)) except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(3) Method 2, 2A, 2C, or 2D, as appropriate, as the reference method for determination of the flow rate of the stack gas. The measurement site shall be the same as for the Method 25 sampling. A velocity traverse shall be made once per run within the hour that the Method 25 sample is taken.

(4) Method 4 for determination of stack gas moisture.

(5) Method 25 or Method 25A for determination of the VOC concentration in a capture system prior to a control device when only a single VOC is present (see §60.543 (f)(2)(iv)(G) and (f)(2)(iv)(H)). The owner or operator shall notify the Administrator at least 30 days in advance of any test by either Method 25 or Method 25A. Method 1 shall be used to select the sampling site and the sampling point shall be the centroid of the duct or at a point no closer to the walls than 1.0 meter (3.3 feet). Method 2, 2A, 2C, or 2D, as appropriate, shall be used as the test method for the concurrent determination of gas flow rate in the capture system.

(i) For Method 25, the sampling time for each run shall be at least 1 hour. For each run, a concurrent sample shall be taken immediately upwind of the application area to determine the background VOC concentration of air drawn into the capture system. Subtract this reading from the reading obtained in the capture system for that run. The minimum sample volume shall be 0.003 dry standard cubic meter (dscm) (0.11 dry standard cubic feet (dscf)) except that shorter sampling times or smaller volumes, when necessitated by process variable or other factors, may be approved by the Administrator. Use Method 3 to determine the moisture content of the stack gas.

(ii) For Method 25A, the sampling time for each run shall be at least 1 hour. Instrument calibration shall be performed by the procedure given in Method 25A using the single VOC present in the capture system. A different calibration gas may be used if the results are corrected using an experimentally determined response factor comparing the alternative calibration gas to the single VOC used in the process. After the instrument has been calibrated, determine the background VOC concentration of the air drawn into the capture system immediately upwind of the application area for each run. The instrument does not need to be recalibrated for the background measurement. Subtract this reading from the reading obtained in the capture system for that run. The Method 25A results shall only be used in the alternative procedure for determination of capture efficiency described under §60.543(f)(2)(iv)(G).

[52 FR 34874, Sept. 15, 1987, as amended at 54 FR 38638, Sept. 19, 1989; 65 FR 61765, Oct. 17, 2000]

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#### **§60.548 Delegation of authority.**

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States: §60.543(c)(2)(ii)(B).

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## Appendix B

40 C.F.R. § 63, Subpart XXXX – *National Emissions Standards for Hazardous Air Pollutants –  
Rubber Tire Manufacturing*





## ELECTRONIC CODE OF FEDERAL REGULATIONS

**e-CFR data is current as of December 9, 2015**

Title 40 → Chapter I → Subchapter C → Part 63 → Subpart XXXX

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

### Subpart XXXX—National Emissions Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing

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SOURCE: 67 FR 45598, July 9, 2002, unless otherwise noted.

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## WHAT THIS SUBPART COVERS

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**§63.5980 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for rubber tire manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

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### **§63.5981 Am I subject to this subpart?**

(a) You are subject to this subpart if you own or operate a rubber tire manufacturing facility that is located at, or is a part of, a major source of hazardous air pollutant (HAP) emissions.

(1) Rubber tire manufacturing includes the production of rubber tires and/or the production of components integral to rubber tires, the production of tire cord, and the application of puncture sealant. Components of rubber tires include, but are not limited to, rubber compounds, sidewalls, tread, tire beads, tire cord and liners. Other components often associated with rubber tires but not integral to the tire, such as wheels, inner tubes, tire bladders, and valve stems, are not components of rubber tires or tire cord and are not subject to this subpart.

(2) A major source of HAP emissions is any stationary source or group of stationary sources within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

(b) You are not subject to this subpart if the affected source at your rubber tire manufacturing facility meets either of the conditions described in paragraph (b)(1) or (2) of this section.

(1) You own or operate a tire cord production affected source, but the primary product produced at the affected source is determined to be subject to another subpart under this part 63 as of the effective date of that subpart (publication date of the final rule) or startup of the source, whichever is later. In this case, you must determine which subpart applies to your source and you must be in compliance with the applicable subpart by the compliance date of that subpart. The primary product is the product that is produced for the greatest operating time over a 5-year period, based on expected utilization for the 5 years following the compliance date or following initial startup of the source, whichever is later.

(2) Your rubber tire manufacturing affected source is a research and development facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

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### **§63.5982 What parts of my facility does this subpart cover?**

(a) This subpart applies to each existing, new, or reconstructed affected source at facilities engaged in the manufacture of rubber tires or their components.

(b) The affected sources are defined in paragraph (b)(1) of this section (tire production), paragraph (b)(2) of this section (tire cord production), paragraph (b)(3) of this section (puncture sealant application), and paragraph (b)(4) of this section (rubber processing).

(1) The tire production affected source is the collection of all processes that use or process cements and solvents as defined in §63.6015, located at any rubber tire manufacturing facility. It includes, but is not limited to: Storage and mixing vessels and the transfer equipment containing cements and/or solvents; wastewater handling and treatment operations; tread and cement operations; tire painting operations; ink and finish operations; undertread cement operations; process equipment cleaning materials; bead cementing operations; tire building operations; green tire spray operations; extruding, to the extent cements and solvents are used; cement house operations; marking operations; calendar operations, to the extent solvents are used; tire striping operations; tire repair operations; slab dip operations; other tire building operations, to the extent that cements and solvents are used; and balance pad operations.

(2) The tire cord production affected source is the collection of all processes engaged in the production of tire cord. It includes, but is not limited to: dipping operations, drying ovens, heat-set ovens, bulk storage tanks, mixing facilities, general facility vents, air pollution control devices, and warehouse storage vents.

(3) The puncture sealant application affected source is the puncture sealant application booth operation used to apply puncture sealant to finished tires.

(4) The rubber processing affected source is the collection of all rubber mixing processes (e.g., banburys and associated drop mills) that either mix compounds or warm rubber compound before the compound is processed into components of rubber tires. The mixed rubber compound itself is also included in the rubber processing affected source. There are no emission limitations or other requirements for the rubber processing affected source.

(c) An affected source is a new affected source if construction of the affected source commenced after October 18, 2000, and it met the applicability criteria of §63.5981 at the time construction commenced.

(d) An affected source is reconstructed if it meets the criteria as defined in §63.2.

(e) An affected source is existing if it is not new or reconstructed.

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#### **§63.5983 When do I have to comply with this subpart?**

(a) If you have a new or reconstructed affected source, except as provided in §§63.5982(b)(4) and 63.5981(b)(1), you must comply with the emission limitations for new and reconstructed sources in this subpart upon startup.

(b) If you have an existing affected source, you must comply with the emission limitations for existing sources no later than July 11, 2005.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the affected source(s) must be in compliance with existing source emission limitations no later than 3 years after the date on which the area source became a major source.

(d) You must meet the notification requirements in §63.6009 according to the schedule in §63.6009 and in subpart A of this part. Some of the notifications must be submitted before the date you are required to comply with the emission limitations in this subpart.

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### **EMISSION LIMITS FOR TIRE PRODUCTION AFFECTED SOURCES**

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#### **§63.5984 What emission limits must I meet for tire production affected sources?**

You must meet each emission limit in either option 1 or option 2 of Table 1 to this subpart that applies to you.

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#### **§63.5985 What are my alternatives for meeting the emission limits for tire production affected sources?**

You must use one of the compliance alternatives in paragraphs (a) through (c) of this section to meet either of the emission limits in §63.5984.

(a) *Purchase alternative.* Use only cements and solvents that, as purchased, contain no more HAP than allowed by the emission limits in Table 1 to this subpart, option 1 (HAP constituent option).

(b) *Monthly average alternative, without using an add-on control device.* Use cements and solvents in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 1 to this subpart, option 1 or option 2.

(c) *Monthly average alternative, using an add-on control device.* Use a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the emission limits in Table 1 to this subpart, option 1 or option 2.

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### **EMISSION LIMITS FOR TIRE CORD PRODUCTION AFFECTED SOURCES**

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#### **§63.5986 What emission limits must I meet for tire cord production affected sources?**

You must meet each emission limit in either option 1 or option 2 of Table 2 to this subpart that applies to you.

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#### **§63.5987 What are my alternatives for meeting the emission limits for tire cord production affected sources?**

You must use one of the compliance alternatives in paragraph (a) or (b) of this section to meet the emission limits in §63.5986.

(a) *Monthly average alternative, without using an add-on control device.* Use coatings in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart.

(b) *Monthly average alternative, using an add-on control device.* Use a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart.

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## EMISSION LIMITATIONS FOR PUNCTURE SEALANT APPLICATION AFFECTED SOURCES

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### §63.5988 What emission limitations must I meet for puncture sealant application affected sources?

(a) You must meet each emission limit in either option 1 or option 2 of Table 3 to this subpart that applies to you.

(b) If you use an add-on control device to meet the emission limits in Table 3 to this subpart, you must also meet each operating limit in Table 4 to this subpart that applies to you.

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### §63.5989 What are my alternatives for meeting the emission limitations for puncture sealant application affected sources?

You must use one of the compliance alternatives in paragraphs (a) through (d) of this section to meet the emission limitations in §63.5988.

(a) *Overall control efficiency alternative.* Use an emissions capture system and control device and demonstrate that the application booth emissions meet the emission limits in Table 3 to this subpart, option 1a or 1b, and the control device and capture system meet the operating limits in Table 4 to this subpart.

(b) *Permanent total enclosure and control device efficiency alternative.* Use a permanent total enclosure that satisfies the Method 204 criteria in 40 CFR part 51, appendix M. Demonstrate that the control device meets the emission limits in Table 3 to this subpart, option 1a or 1b. You must also show that the control device and capture system meet the operating limits in Table 4 to this subpart.

(c) *Monthly average alternative, without using an add-on control device.* Use puncture sealants in such a way that the monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2.

(d) *Monthly average alternative, using an add-on control device.* Use a control device to reduce HAP emissions so that monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2.

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## GENERAL COMPLIANCE REQUIREMENTS

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### §63.5990 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the applicable emission limitations specified in Tables 1 through 4 to this subpart at all times, except during periods of startup, shutdown, and malfunction if you are using a control device to comply with an emission limit.

(b) Except as provided in §63.5982(b)(4), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) During the period between the compliance date specified for your source in §63.5983 and the date upon which continuous compliance monitoring systems (CMS) have been installed and validated and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emission control equipment.

(d) For each affected source that complies with the emission limits in Tables 1 through 3 to this subpart using a control device, you must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

(e) For each monitoring system required in this section, you must develop and submit for approval a site-specific monitoring plan that addresses the requirements in paragraphs (e)(1) through (3) of this section as follows:

(1) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit so that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and

(3) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(f) In your site-specific monitoring plan, you must also address the ongoing procedures specified in paragraphs (f)(1) through (3) of this section as follows:

(1) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), (4)(ii), (7), and (8), and this section;

(2) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(3) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e) (1), and (e)(2)(i).

[67 FR 45598, July 9, 2002, as amended at 71 FR 20466, Apr. 20, 2006]

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## GENERAL TESTING AND INITIAL COMPLIANCE REQUIREMENTS

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### §63.5991 By what date must I conduct an initial compliance demonstration or performance test?

(a) If you have a new or reconstructed affected source, you must conduct each required initial compliance demonstration or performance test within 180 calendar days after the compliance date that is specified for your new or reconstructed affected source in §63.5983(a). If you are required to conduct a performance test, you must do so according to the provisions of §63.7(a)(2).

(b) If you have an existing affected source, you must conduct each required initial compliance demonstration or performance test no later than the compliance date that is specified for your existing affected source in §63.5983(b). If you are required to conduct a performance test, you must do so according to the provisions of §63.7(a)(2).

(c) If you commenced construction or reconstruction between October 18, 2000 and July 9, 2002, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than January 6, 2003, or within 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between October 18, 2000 and July 9, 2002, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limitation no later than January 5, 2006, or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

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### §63.5992 When must I conduct subsequent performance tests?

If you use a control system (add-on control device and capture system) to meet the emission limitations, you must also conduct a performance test at least once every 5 years following your initial compliance demonstration to verify control system performance and reestablish operating parameters or operating limits for control systems used to comply with the emissions limits.

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### §63.5993 What performance tests and other procedures must I use?

(a) If you use a control system to meet the emission limitations, you must conduct each performance test in Table 5 to this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements in §63.7(e)(1) and under the specific conditions specified in Table 5 to this subpart.

(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(1), unless otherwise specified in the test method. Each test run must last at least 1 hour.

(e) If you are complying with the emission limitations using a control system, you must also conduct performance tests according to the requirements in paragraphs (e)(1) through (3) of this section as they apply to you.

(1) *Determining capture efficiency of permanent or temporary total enclosure.* Determine the capture efficiency of a capture system by using one of the procedures in Table 5 to this subpart.

(2) *Determining capture efficiency of an alternative method.* As an alternative to constructing a permanent or temporary total enclosure, you may determine the capture efficiency using any capture efficiency protocol and test methods if the data satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach in appendix A to subpart KK of this part.

(3) *Determining efficiency of an add-on control device.* Use Table 5 to this subpart to select the test methods for determining the efficiency of an add-on control device.

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## TESTING AND INITIAL COMPLIANCE REQUIREMENTS FOR TIRE PRODUCTION AFFECTED SOURCES

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### §63.5994 How do I conduct tests and procedures for tire production affected sources?

(a) *Methods to determine the mass percent of HAP in cements and solvents.* To determine the HAP content in the cements and solvents used at your tire production affected source, use EPA Method 311 of appendix A of this part, an approved alternative method, or any other reasonable means for determining the HAP content of your cements and solvents. Other reasonable means include, but are not limited to: a material safety data sheet (MSDS), provided it contains appropriate information; a certified product data sheet (CPDS); or a manufacturer's hazardous air pollutant data sheet. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(b) *Methods to demonstrate compliance with the HAP constituent emission limits in Table 1 to this subpart (option 1).* Use the method in paragraph (b)(1) of this section to demonstrate initial and continuous compliance with the applicable emission limits for tire production affected sources using the compliance alternative described in §63.5985(a), purchase alternative. Use the equations in paragraphs (b)(2) and (3) of this section to demonstrate initial and continuous compliance with the emission limits for tire production affected sources using the monthly average compliance alternatives described in §63.5985(b) and (c).

(1) Determine the mass percent of each HAP in each cement and solvent according to the procedures in paragraph (a) of this section.

(2) Use Equation 1 of this section to calculate the HAP emission rate for each monthly operating period when complying by using cements and solvents without using an add-on control device so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to this subpart, option 1. Equation 1 follows:

$$E_{\text{month}} = \frac{\left( \sum_{i=1}^n (HAP_i)(TMASS_i) \right) (10^6)}{\sum_{i=1}^n TMASS_i} \quad (\text{Eq. 1})$$

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Where:

$E_{\text{month}}$  = mass of the specific HAP emitted per total mass cements and solvents from all cements and solvents used in tire production per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of the specific HAP in cement and solvent  $i$ , as purchased, determined in accordance with paragraph (a) of this section.

$TMASS_i$  = total mass of cement and solvent  $i$  used in the month, grams.

$n$  = number of cements and solvents used in the month.

(3) Use Equation 2 of this section to calculate the HAP emission rate for each monthly period when complying by using a control device to reduce HAP emissions so that the monthly average HAP emissions do not exceed the HAP constituent emission limits in Table 1 to this subpart (option 1). Equation 2 follows:



$$E_{\text{month}} = \frac{\left\{ \sum_{i=1}^n (HAP_i)(TMASS_i) + \sum_{j=1}^m (HAP_j)(TMASS_j) \left(1 - \frac{EFF}{100}\right) + \sum_{k=1}^p (HAP_k)(TMASS_k) \right\} (10^6)}{\sum_{i=1}^n TMASS_i + \sum_{j=1}^m TMASS_j + \sum_{k=1}^p TMASS_k} \quad (\text{Eq. 2})$$

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Where:

$E_{\text{month}}$  = mass of the specific HAP emitted per total mass cements and solvents from all cements and solvents used in tire production per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of the specific HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section for cements and solvents used in the month in processes that are not routed to a control device.

$TMASS_i$  = total mass of cement and solvent i used in the month in processes that are not routed to a control device, grams.

$n$  = number of cements and solvents used in the month in processes that are not routed to a control device.

$HAP_j$  = mass percent, expressed as a decimal, of the specific HAP in cement and solvent j, as purchased, determined in accordance with paragraph (a) of this section, for cements and solvents used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TMASS_j$  = total mass of cement and solvent j used in the month in processes that are routed to a control device during all operating days, grams.

$EFF$  = efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

$m$  = number of cements and solvents used in the month that are routed to a control device during all operating days.

$HAP_k$  = mass percent, expressed as a decimal, of the specific HAP in cement and solvent k, as purchased, for cements and solvents used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TMASS_k$  = total mass of cement and solvent k used in the month in processes that are routed to a control device during all non-control operating days, grams.

$p$  = number of cements and solvents used in the month that are routed to a control device during all non-control operating days.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(c) *Methods to demonstrate compliance with the production-based emission limits in Table 1 to this subpart, option 2.* Use the methods and equations in paragraphs (c)(1) through (6) of this section to demonstrate initial and continuous compliance with the production-based emission limits for tire production affected sources using the compliance alternatives described in §63.5985(b) and (c).

(1) *Methods to determine the mass percent of each HAP in cements and solvents.* Determine the mass percent of all HAP in cements and solvents using the applicable methods specified in paragraph (a) of this section.

(2) *Quantity of rubber used.* Determine your quantity of rubber used (megagrams) by accounting for the total mass of mixed rubber compound that is delivered to the tire production operation.

(3) *Compliance without use of an add-on control device.* If you do not use an add-on control device to meet the emission limits, use Equation 3 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of rubber used, using the quantity of rubber used per month (megagrams), as determined in paragraph (c)(2) of this section so that the monthly average HAP emission does not exceed the HAP emission limit in Table 1 to this subpart, option 2. Equation 3 follows:

$$E_{\text{month}} = \frac{\sum_{i=1}^n (HAP_i)(TMASS_i)}{RMASS} \quad (\text{Eq. 3.})$$

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Where:

$E_{\text{month}}$  = mass of all HAP emitted per total mass of rubber used month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of all HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section.

$TMASS_i$  = total mass of cement and solvent i used in the month, grams.

$n$  = number of cements and solvents used in the month.

$RMASS$  = total mass of rubber used per month, megagrams.

(4) *Compliance with use of an add-on control device.* If you use a control device to meet the emission limits, use Equation 4 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of rubber used, using the quantity of rubber used per month (megagrams), as determined in paragraph (c)(2) of this section so that the monthly average HAP emission does not exceed the HAP emission limit in Table 1 of this subpart, option 2. Equation 4 follows:

$$E_{month} = \frac{\sum_{i=1}^n (HAP_i)(TMASS_i) + \sum_{j=1}^m (HAP_j)(TMASS_j) \left(1 - \frac{EFF}{100}\right) + \sum_{k=1}^p (HAP_k)(TMASS_k)}{RMASS} \quad (\text{Eq. 4})$$

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Where:

$E_{month}$  = mass of all HAP emitted per total mass rubber used per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of all HAP in cement and solvent i, as purchased, determined in accordance with paragraph (a) of this section for cements and solvents used in the month in processes that are not routed to a control device.

$TMASS_i$  = total mass of cement and solvent i used in the month in processes that are not routed to a control device, grams.

$n$  = number of cements and solvents used in the month in processes that are not routed to a control device.

$HAP_j$  = mass percent, expressed as a decimal, of all HAP in cement and solvent j, as purchased, determined in accordance with paragraph (a) of this section, for cements and solvents used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TMASS_j$  = total mass of cement and solvent j used in the month in processes that are routed to a control device during all operating days.

$EFF$  = efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

$m$  = number of cements and solvents used in the month that are routed to a control device during all operating days.

$HAP_k$  = mass percent, expressed as a decimal, of all HAP in cement and solvent k, as purchased, for cements and solvents used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TMASS_k$  = total mass of cement and solvent k used in the month in processes that are routed to a control device during all non-control operating days, grams.

$p$  = number of cements and solvents used in the month that are routed to a control device during all non-control operating days.

$RMASS$  = total mass of rubber used per month, megagrams.

(5) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(d) *Specific compliance demonstration requirements for tire production affected sources.* (1) Conduct any required compliance demonstration according to the requirements in §63.5993.

(2) If you are demonstrating compliance with the HAP constituent option in Table 1 to this subpart, option 1, conduct the compliance demonstration using cements and solvents that are representative of cements and solvents typically used at your tire production affected source.

(3) Establish an operating range that corresponds to the control efficiency as described in Table 5 to this subpart.

(e) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equations 2 and 4 of this section for HAP emissions reduced using a control system, you must meet the requirements in paragraphs (e)(1) and (2) of this section.

(1) Monitor the established operating parameters as appropriate.

(i) If you use a thermal oxidizer, monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle.

(iii) If you use a control device other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to §63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the natural draft openings (NDO) in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last compliance demonstration was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(2) Maintain the operating parameters within the operating range established during the compliance demonstration.

(f) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

[67 FR 45598, July 9, 2002, as amended at 68 FR 11747, Mar. 12, 2003]

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### **§63.5995 What are my monitoring installation, operation, and maintenance requirements?**

(a) For each operating parameter that you are required by §63.5994(e)(1) to monitor, you must install, operate, and maintain a continuous parameter monitoring system (CPMS) according to the requirements in §63.5990(e) and (f) and in paragraphs (a)(1) through (6) of this section.

(1) You must operate your CPMS at all times that the process is operating.

(2) You must collect data from at least four equally spaced periods each hour.

(3) For at least 75 percent of the hours in an operating day, you must have valid data (as defined in your site-specific monitoring plan) for at least four equally spaced periods each hour.

(4) For each hour that you have valid data from at least four equally spaced periods, you must calculate the hourly average value using all valid data.

(5) You must calculate the daily average using all of the hourly averages calculated according to paragraph (a)(3) of this section for the 24-hour period.

(6) You must record the results for each inspection, calibration, and validation check as specified in your site-specific monitoring plan.

(b) For each temperature monitoring device, you must meet the requirements in paragraphs (a) and (b)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a non-cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.2 degrees centigrade or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.2 degrees centigrade or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If a chart recorder is used, it must have a sensitivity in the minor division of at least 20 degrees Fahrenheit.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed near the process temperature sensor must yield a reading within 16.7 degrees centigrade of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(8) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(c) For each integrating regeneration stream flow monitoring device associated with a carbon adsorber, you must meet the requirements in paragraphs (a) and (c)(1) and (2) of this section.

(1) Use a device that has an accuracy of  $\pm 10$  percent or better.

(2) Use a device that is capable of recording the total regeneration stream mass or volumetric flow for each regeneration cycle.

(d) For any other control device, or for other capture systems, ensure that the CPMS is operated according to a monitoring plan submitted to the Administrator with the compliance status report required by §63.9(h). The monitoring plan must meet the requirements in paragraphs (a) and (d)(1) through (3) of this section. Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(1) Identify the operating parameter to be monitored to ensure that the control or capture efficiency measured during the initial compliance test is maintained.

(2) Discuss why this parameter is appropriate for demonstrating ongoing compliance.

(3) Identify the specific monitoring procedures.

(e) For each pressure differential monitoring device, you must meet the requirements in paragraphs (a) and (e)(1) and (2) of this section.

(1) Conduct a quarterly EPA Method 2 procedure (found in 40 CFR part 60, appendix A) on the applicable NDOs and use the results to calibrate the pressure monitor if the difference in results are greater than 10 percent.

(2) Inspect the NDO monthly to ensure that their size has not changed, that there are no new NDO, and that no HAP sources have been moved closer to the NDO than when the last performance test was conducted.

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#### **§63.5996 How do I demonstrate initial compliance with the emission limits for tire production affected sources?**

(a) You must demonstrate initial compliance with each emission limit that applies to you according to Table 6 to this subpart.

(b) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6009(e).

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### **TESTING AND INITIAL COMPLIANCE REQUIREMENTS FOR TIRE CORD PRODUCTION AFFECTED SOURCES**

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#### **§63.5997 How do I conduct tests and procedures for tire cord production affected sources?**

(a) *Methods to determine the mass percent of each HAP in coatings.* (1) To determine the HAP content in the coating used at your tire cord production affected source, use EPA Method 311 of appendix A of this part, an approved alternative method, or any other reasonable means for determining the HAP content of your coatings. Other reasonable means include, but are not limited to: an MSDS, provided it contains appropriate information; a CPDS; or a manufacturer's HAP data sheet. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Unless you demonstrate otherwise, the HAP content analysis must be based on coatings prior to any cross-linking reactions, *i.e.*, curing. However, you may account for differences in HAP emissions resulting from chemical reactions based on the conversion rates of the individual coating formulations, chemistry demonstrations, or other demonstrations that are verifiable to the approving agency. Use the revised value in your compliance demonstration in the relevant equations in paragraph (b) of this section.

(b) *Methods to determine compliance with the emission limits in Table 2 to this subpart, option 1.* Use the equations in this paragraph (b) to demonstrate initial and continuous compliance with the emission limits for tire cord production sources using the compliance alternatives described in §63.5987(a) and (b).

(1) *Determine mass percent of HAP.* Determine the mass percent of all HAP in each coating according to the procedures in paragraph (a) of this section.

(2) *Compliance without use of an add-on control device.* If you do not use an add-on control device to meet the emission limits, use Equation 1 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of fabric processed at the tire cord production source to show that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart, option 1. Equation 1 follows:

$$E_{\text{month}} = \frac{\sum_{i=1}^n (HAP_i)(TCOAT_i)}{TFAB} \quad (\text{Eq. 1})$$

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Where:

$E_{\text{month}}$  = mass of all HAP emitted per total mass of fabric processed in the month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of all HAP in the coating  $i$ , prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section.

$TCOAT_i$  = total mass of coating  $i$  made and used for application to fabric at the facility in the month, grams.

$n$  = number of coatings used in the month.

$TFAB$  = total mass of fabric processed in the month, megagrams.

(3) *Compliance with use of an add-on control device.* If you use a control device to meet the emission limits, use Equation 2 of this section to calculate the monthly HAP emission rate in grams of HAP emitted per megagram of fabric processed to show that the monthly average HAP emissions do not exceed the HAP emission limit in Table 2 of this subpart, option 1. Equation 2 follows:

$$E_{\text{month}} = \frac{\sum_{i=1}^n (HAP_i)(TCOAT_i) + \sum_{j=1}^m (HAP_j)(TCOAT_j) \left(1 - \frac{EFF}{100}\right) + \sum_{k=1}^p (HAP_k)(TCOAT_k)}{TFAB} \quad (\text{Eq. 2})$$

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Where:

$E_{\text{month}}$  = mass of all HAP emitted per total mass of fabric processed in the month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of all HAP in coating  $i$ , prior to curing and including any application stations dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are not routed to a control device.

$TCOAT_i$  = total mass of coating  $i$  made and used for application to fabric at the facility in the month in processes that are not routed to a control device, grams.

$n$  = number of coatings used in the month in processes that are not routed to a control device.

$HAP_j$  = mass percent, expressed as a decimal, of all HAP in coating  $j$ , prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TCOAT_j$  = total mass of coating  $j$  made and used for application to fabric at the facility in the month in processes that are routed to a control device during all operating days, grams.

$EFF$  = efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

$m$  = number of coatings used in the month that are routed to a control device during all operating days.

$HAP_k$  = mass percent, expressed as a decimal, of all HAP in coating  $k$ , prior to curing and including any application station dilution, for coatings used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TCOAT_k$  = total mass of coating  $k$  made and used for application to fabric at the facility in the month in processes that are routed to a control device during all non-control operating days, grams.

$p$  = number of coatings used in the month that are routed to a control device during all non-control operating days.

TFAB = total mass of fabric processed in the month, megagrams.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(c) *Methods to determine compliance with the emission limits in table 2 of this subpart, option 2.* Use the equations in this paragraph (c) to demonstrate initial and continuous compliance with the emission limits for tire cord production sources using the compliance alternatives described in §63.5987(a) and (b).

(1) Determine the mass percent of each HAP in each coating according to the procedures in paragraph (a) of this section.

(2) Use Equation 3 of this section to calculate the monthly average HAP emission rate when complying by using coatings without using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in Table 2 to this subpart, option 2. Equation 3 follows:

$$E_{\text{month}} = \frac{\left( \sum_{i=1}^n (HAP_i)(TCOAT_i) \right) (10^6)}{\sum_{i=1}^n TCOAT_i} \quad (\text{Eq. 3})$$

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Where:

$E_{\text{month}}$  = mass of the specific HAP emitted per total mass of coatings from all coatings made and used in tire cord fabric production per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of the specific HAP in the coating  $i$ , prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section.

$TCOAT_i$  = total mass of coating  $i$  made and used for application to fabric at the facility in the month, grams.

$n$  = number of coatings used in the month.

(3) Use Equation 4 of this section to calculate the monthly average HAP emission rate when complying by using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in table 2 to this subpart, option 2. Equation 4 follows:

$$E_{\text{month}} = \frac{\left\{ \sum_{i=1}^n (HAP_i)(TCOAT_i) + \sum_{j=1}^m (HAP_j)(TCOAT_j) \left( 1 - \frac{EFF}{100} \right) + \sum_{k=1}^p (HAP_k)(TMASS_k) \right\} (10^6)}{\sum_{i=1}^n TCOAT_i + \sum_{j=1}^m TCOAT_j + \sum_{k=1}^p TCOAT_k} \quad (\text{Eq. 4})$$

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Where:

$E_{\text{month}}$  = mass of the specific HAP emitted per total mass of coatings from all coatings made and used in tire cord fabric production per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of the specific HAP in coating  $i$ , prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are not routed to a control device.

$TCOAT_i$  = total mass of coating  $i$  made and used for application to fabric at the facility in the month in processes that are not routed to a control device, grams.

$n$  = number of coatings used in the month in processes that are not routed to a control device.

$HAP_j$  = mass percent, expressed as a decimal, of the specific HAP in coating  $j$ , prior to curing and including any application station dilution, determined in accordance with paragraph (a) of this section, for coatings used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TCOAT_j$  = total mass of coating  $j$  made and used for application to fabric at the facility in the month in processes that are routed to a control device during all operating days, grams.

$EFF$  = efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

$m$  = number of coatings used in the month that are routed to a control device during all operating days.

$HAP_k$  = mass percent, expressed as a decimal, of the specific HAP in coating k, prior to curing and including any application station dilution, for coatings used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TCOAT_k$  = total mass of coating i made and used for application to fabric at the facility in the month in processes that are routed to a control device during all non-control operating days, grams.

p = number of coatings used in the month that are routed to a control device during all non-control operating days.

(4) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(d) *Specific compliance demonstration requirements for tire cord production affected sources.* (1) Conduct any required compliance demonstrations according to the requirements in §63.5993.

(2) Conduct the compliance demonstration using coatings with average mass percent HAP content that are representative of the coatings typically used at your tire cord production affected source.

(3) Establish an operating range that corresponds to the control efficiency as described in Table 5 to this subpart.

(e) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equations 2 and 4 of this section for HAP emissions reduced using a control system, you must meet the requirements in paragraphs (e)(1) and (2) of this section.

(1) Monitor the established operating parameters as appropriate.

(i) If you use a thermal oxidizer, continuously monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle and the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.

(iii) If you use a control device other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to §63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the NDO in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last performance test was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(2) Maintain the operating parameter within the operating range established during the compliance demonstration.

(f) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

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### **§63.5998 What are my monitoring installation, operation, and maintenance requirements?**

For each operating parameter that you are required by §63.5997(e)(1) to monitor, you must install, operate, and maintain a continuous parameter monitoring system according to the provisions in §63.5995(a) through (e).

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### **§63.5999 How do I demonstrate initial compliance with the emission limits for tire cord production affected sources?**

(a) You must demonstrate initial compliance with each emission limit that applies to you according to Table 7 to this subpart.

(b) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6009(e).

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## **TESTING AND INITIAL COMPLIANCE REQUIREMENTS FOR PUNCTURE SEALANT APPLICATION AFFECTED SOURCES**

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### §63.6000 How do I conduct tests and procedures for puncture sealant application affected sources?

(a) *Methods to determine compliance with the puncture sealant application emission limitations in Table 3 to this subpart.* Use the methods and equations in paragraph (b) of this section to demonstrate initial and continuous compliance with the overall control efficiency compliance alternatives described in §63.5989(a) and (b). Use the methods and equations in paragraphs (c) through (g) of this section to demonstrate initial and continuous compliance with the HAP constituent compliance alternative described in §63.5989(c) and (d).

(b) *Methods to determine compliance with the emission limits in Table 3 to this subpart, option 1.* Follow the test procedures described in §63.5993 to determine the overall control efficiency of your system.

(1) You must also meet the requirements in paragraphs (b)(1)(i) and (ii) of this section.

(i) Conduct the performance test using a puncture sealant with an average mass percent HAP content that is representative of the puncture sealants typically used at your puncture sealant application affected source.

(ii) Establish all applicable operating limit ranges that correspond to the control system efficiency as described in Table 5 to this subpart.

(2) Use Equation 1 of this section to calculate the overall efficiency of the control system. If you have a permanent total enclosure that satisfies EPA Method 204 (found in 40 CFR part 51, appendix M) criteria, assume 100 percent capture efficiency for variable F. Equation 1 follows:

$$R = \frac{(F)(E)}{100} \quad (\text{Eq. 1})$$

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Where:

R = overall control system efficiency, percent.

F = capture efficiency of the capture system on add-on control device, percent, determined during the performance test.

E = control efficiency of add-on control device k, percent, determined during the performance test.

(3) Monitor the established operating limits as appropriate.

(i) If you use a thermal oxidizer, monitor the firebox secondary chamber temperature.

(ii) If you use a carbon adsorber, monitor the total regeneration stream mass or volumetric flow for each regeneration cycle, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle.

(iii) For each control device used other than a thermal oxidizer or a regenerative carbon adsorber, install and operate a continuous parameter monitoring system according to your site-specific performance test plan submitted according to §63.7(c)(2)(i).

(iv) If you use a permanent total enclosure, monitor the face velocity across the NDO in the enclosure. Also, if you use an enclosure, monitor to ensure that the sizes of the NDO have not changed, that there are no new NDO, and that a HAP emission source has not been moved closer to an NDO since the last performance test was conducted.

(v) If you use other capture systems, monitor the parameters identified in your monitoring plan.

(vi) Maintain the operating parameter within the operating range established during the performance test.

(c) *Methods to determine the mass percent of each HAP in puncture sealants.* To determine the HAP content in the puncture sealant used at your puncture sealant application affected source, use EPA Method 311 of appendix A of 40 CFR part 63, an approved alternative method, or any other reasonable means for determining the HAP content of your puncture sealants. Other reasonable means include, but are not limited to: an MSDS, provided it contains appropriate information; a CPDS; or a manufacturer's hazardous air pollutant data sheet. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(d) *Methods to determine compliance with the emission limits in Table 3 to this subpart, option 2.* Use the equations in this paragraph (d) to demonstrate initial and continuous compliance with the HAP constituent emission limits for puncture sealant application affected sources using the compliance alternatives described in §63.5989(c) and (d).



(1) Use Equation 2 of this section to calculate the monthly average HAP emission rate when complying by using puncture sealants without using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2. Equation 2 follows:

$$E_{\text{month}} = \frac{\left( \sum_{i=1}^n (HAP_i)(TPSEAL_i) \right) (10^6)}{\sum_{i=1}^n TPSEAL_i} \quad (\text{Eq. 2})$$

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Where:

$E_{\text{month}}$  = mass of the specific HAP emitted per total mass of puncture sealants from all puncture sealants used at the puncture sealant affected source per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of the specific HAP in puncture sealant  $i$ , including any application booth dilution, determined in accordance with paragraph (c) of this section.

$TPSEAL_i$  = total mass of puncture sealant  $i$  used in the month, grams.

$n$  = number of puncture sealants used in the month.

(2) Use Equation 3 of this section to calculate the monthly average HAP emission rate when complying by using puncture sealants by using an add-on control device to show that the monthly average HAP emissions do not exceed the emission limits in Table 3 to this subpart, option 2. Equation 3 follows:

$$E_{\text{month}} = \frac{\left\{ \sum_{i=1}^n (HAP_i)(TPSEAL_i) + \sum_{j=1}^m (HAP_j)(TPSEAL_j) \left( 1 - \frac{EFF}{100} \right) + \sum_{k=1}^p (HAP_k)(TPSEAL_k) \right\} (10^6)}{\sum_{i=1}^n TPSEAL_i + \sum_{j=1}^m TPSEAL_j + \sum_{k=1}^p TPSEAL_k} \quad (\text{Eq. 3})$$

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Where:

$E_{\text{month}}$  = mass of the specific HAP emitted per total mass of puncture sealants used at the puncture sealant affected source per month, grams per megagram.

$HAP_i$  = mass percent, expressed as a decimal, of the specific HAP in puncture sealant  $i$ , including any application booth dilution, determined in accordance with paragraph (c) of this section for puncture sealants used in the month in processes that are not routed to a control device.

$TPSEAL_i$  = total mass of puncture sealant  $i$  used in the month in processes that are not routed to a control device, gram.

$n$  = number of puncture sealants used in the month in processes that are not routed to a control device.

$HAP_j$  = mass percent, expressed as a decimal, of the specific HAP, in puncture sealant  $j$ , including any application booth dilution, determined in accordance with paragraph (c) of this section, for puncture sealants used in the month in processes that are routed to a control device during operating days, which are defined as days when the control system is operating within the operating range established during the performance test and when monitoring data are collected.

$TPSEAL_j$  = total mass of puncture sealant  $j$  used in the month in processes that are routed to a control device during all operating days, grams.

$EFF$  = efficiency of the control system determined during the performance test (capture system efficiency multiplied by the control device efficiency), percent.

$m$  = number of puncture sealants used in the month that are routed to a control device during all operating days.

$HAP_k$  = mass percent, expressed as a decimal, of the specific HAP, in puncture sealant  $k$ , including any application booth dilution, for puncture sealants used in the month in processes that are routed to a control device during non-control operating days, which are defined as days when either the control system is not operating within the operating range established during the performance test or when monitoring data are not collected.

$TPSEAL_k$  = total mass of total mass of puncture sealant  $k$  used in the month in processes that are routed to a control device during all non-control operating days, grams.

$p$  = number of puncture sealants used in the month that are routed to a control device during all non-control operating days.

(3) Each monthly calculation is a compliance demonstration for the purpose of this subpart.

(e) *Specific compliance demonstration requirements for puncture sealant application affected sources.* (1) Conduct any required compliance demonstrations according to the requirements in §63.5993.

(2) Conduct the compliance demonstration using a puncture sealant with average mass percent HAP content that is representative of the puncture sealants typically used at your puncture sealant application affected source.

(3) Establish an operating range that corresponds to the appropriate control efficiency described in Table 5 to this subpart.

(f) *How to take credit for HAP emissions reductions from add-on control devices.* If you want to take credit in Equation 3 of this section for HAP emissions reduced using a control system, you must monitor the established operating parameters as appropriate and meet the requirements in paragraph (b)(3) of this section.

(g) *How to take credit for HAP emissions reductions when streams are combined.* When performing material balances to demonstrate compliance, if the storage of materials, exhaust, or the wastewater from more than one affected source are combined at the point where control systems are applied, any credit for emissions reductions needs to be prorated among the affected sources based on the ratio of their contribution to the uncontrolled emissions.

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### **§63.6001 What are my monitoring installation, operation, and maintenance requirements?**

For each operating limit that you are required by §63.6000(b)(3) to monitor or each operating parameter that you are required by §63.6000(f) to monitor, you must install, operate, and maintain a continuous parameter monitoring system according to the provisions in §63.5995(a) through (e).

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### **§63.6002 How do I demonstrate initial compliance with the emission limits for puncture sealant application affected sources?**

(a) You must demonstrate initial compliance with each emission limit that applies to you according to Table 8 to this subpart.

(b) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6009(e).

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## **CONTINUOUS COMPLIANCE REQUIREMENTS FOR TIRE PRODUCTION AFFECTED SOURCES**

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### **§63.6003 How do I monitor and collect data to demonstrate continuous compliance with the emission limits for tire production affected sources?**

(a) You must monitor and collect data as specified in Table 9 to this subpart.

(b) Except for periods of monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) while the affected source is operating. This includes periods of startup, shutdown, and malfunction when the affected source is operating.

(c) In data average calculations and calculations used to report emission or operating levels, you may not use data recorded during periods of monitoring malfunctions or associated repairs, or recorded during required quality assurance or control activities. Such data may not be used in fulfilling any applicable minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

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### **§63.6004 How do I demonstrate continuous compliance with the emission limits for tire production affected sources?**

(a) You must demonstrate continuous compliance with each applicable limit in Table 1 to this subpart using the methods specified in Table 10 to this subpart.

(b) You must report each instance in which you did not meet an emission limit in Table 1 to this subpart. You must also report each instance in which you did not meet the applicable requirements in Table 10 to this subpart. These instances are deviations from the emission limits in this subpart. The deviations must be reported in accordance with the requirements in §63.6010(e).

(c) You also must meet the following requirements if you are complying with the purchase alternative for tire production sources described in §63.5985(a):

(1) If, after you submit the Notification of Compliance Status, you use a cement or solvent for which you have not previously verified percent HAP mass using the methods in §63.5994(a), you must verify that each cement and solvent used in the affected source meets the emission limit, using any of the methods in §63.5994(a).

(2) You must update the list of all the cements and solvents used at the affected source.

(3) With the compliance report for the reporting period during which you used the new cement or solvent, you must submit the updated list of all cements and solvents and a statement certifying that, as purchased, each cement and solvent used at the affected source during the reporting period met the emission limits in table 1 to this subpart.

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## CONTINUOUS COMPLIANCE REQUIREMENTS FOR TIRE CORD PRODUCTION AFFECTED SOURCES

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### **§63.6005 How do I monitor and collect data to demonstrate continuous compliance with the emission limits for tire cord production affected sources?**

(a) You must monitor and collect data to demonstrate continuous compliance with the emission limits for tire cord production affected sources as specified in table 11 to this subpart.

(b) You must monitor and collect data according to the requirements in §63.6003(b) and (c).

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### **§63.6006 How do I demonstrate continuous compliance with the emission limits for tire cord production affected sources?**

(a) You must demonstrate continuous compliance with each applicable emission limit in table 2 to this subpart using the methods specified in table 12 to this subpart.

(b) You must report each instance in which you did not meet an applicable emission limit in table 2 to this subpart. You must also report each instance in which you did not meet the applicable requirements in table 12 to this subpart. These instances are deviations from the emission limits in this subpart. The deviations must be reported in accordance with the requirements in §63.6010(e).

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## CONTINUOUS COMPLIANCE REQUIREMENTS FOR PUNCTURE SEALANT APPLICATION AFFECTED SOURCES

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### **§63.6007 How do I monitor and collect data to demonstrate continuous compliance with the emission limitations for puncture sealant application affected sources?**

(a) You must monitor and collect data to demonstrate continuous compliance with the emission limitations for puncture sealant application affected sources as specified in table 13 to this subpart.

(b) You must monitor and collect data according to the requirements in §63.6003(b) and (c).

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### **§63.6008 How do I demonstrate continuous compliance with the emission limitations for puncture sealant application affected sources?**

(a) You must demonstrate continuous compliance with each applicable emission limitation in tables 3 and 4 to this subpart using the methods specified in Table 14 to this subpart.

(b) You must report each instance in which you did not meet an applicable emission limit in table 3 to this subpart. You must also report each instance in which you did not meet the applicable requirements in table 14 to this subpart. These instances are deviations from the emission limits in this subpart. The deviations must be reported in accordance with the requirements in §63.6010(e).

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## NOTIFICATIONS, REPORTS, AND RECORDS

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### §63.6009 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7 (b) and (c), 63.8(f) (4) and (6), and 63.9 (b) through (e) and (h) that apply to you by the dates specified.

(b) As specified in §63.9(b)(2), if you startup your affected source before July 9, 2002, you must submit an Initial Notification not later than November 6, 2002.

(c) As specified in §63.9(b)(3), if you startup your new or reconstructed affected source on or after July 9, 2002, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in tables 5 through 8 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h) (2)(ii). The Notification must contain the information listed in table 15 to this subpart for compliance reports. The Notification of Compliance Status must be submitted according to the following schedules, as appropriate:

(1) For each initial compliance demonstration required in tables 6 through 8 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in tables 6 through 8 to this subpart that includes a performance test conducted according to the requirements in table 5 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2).

(f) For each tire production affected source, the Notification of Compliance Status must also identify the emission limit option in §63.5984 and the compliance alternative in §63.5985 that you have chosen to meet.

(g) For each tire production affected source complying with the purchase compliance alternative in §63.5985(a), the Notification of Compliance Status must also include the information listed in paragraphs (g)(1) and (2) of this section.

(1) A list of each cement and solvent, as purchased, that is used at the affected source and the manufacturer or supplier of each.

(2) The individual HAP content (percent by mass) of each cement and solvent that is used.

(h) For each tire production or tire cord production affected source using a control device, the Notification of Compliance Status must also include the information in paragraphs (h) (1) and (2) of this section for each operating parameter in §§63.5994(e)(1) and 63.5997(e)(1) that applies to you.

(1) The operating parameter value averaged over the full period of the performance test (e.g., average secondary chamber firebox temperature over the period of the performance test was 1,500 degrees Fahrenheit).

(2) The operating parameter range within which HAP emissions are reduced to the level corresponding to meeting the applicable emission limits in tables 1 and 2 to this subpart.

(i) For each puncture sealant application affected source using a control device, the Notification of Compliance Status must include the information in paragraphs (i)(1) and (2) of this section for each operating limit in §63.6000(b)(3) and each operating parameter in §63.6000(f).

(1) The operating limit or operating parameter value averaged over the full period of the performance test.

(2) The operating limit or operating parameter range within which HAP emissions are reduced to the levels corresponding to meeting the applicable emission limitations in table 3 to this subpart.

(j) For each tire cord production affected source required to assess the predominant use for coating web substrates as required by §63.5981(b), you must submit a notice of the results of the reassessment within 30 days of completing the reassessment. The notice shall specify whether this subpart XXXX is still the applicable subpart and, if it is not, which part 63 subpart is applicable.

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### §63.6010 What reports must I submit and when?

(a) You must submit each applicable report in table 15 to this subpart.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in table 15 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.5983 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.5983.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.5983.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting subparts pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain information specified in paragraphs (c)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there are no deviations from any emission limitations (emission limit or operating limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the operating parameter monitoring systems were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the operating parameter monitoring systems or CPMS were out-of-control during the reporting period.

(7) For each tire production affected source, the emission limit option in §63.5984 and the compliance alternative in §63.5985 that you have chosen to meet.

(8) For each tire production affected source complying with the purchase compliance alternative in §63.5985(a), and for each annual reporting period during which you use a cement and solvent that, as purchased, was not included in the list submitted with the Notification of Compliance Status in §63.6009(g), an updated list of all cements and solvents used, as purchased, at the affected source. You must also include a statement certifying that each cement and solvent, as purchased, that was used at the affected source during the reporting period met the HAP constituent limits (option 1) in table 1 to this subpart.

(9) For each tire cord production affected source, the emission limit option in §63.5986 and the compliance alternative in §63.5987 that you have chosen to meet.

(10) For each puncture sealant application affected source, the emission limit option in §63.5988 and the compliance alternative in §63.5989 that you have chosen to meet.

(d) For each deviation from an emission limitation (emission limit or operating limit) that occurs at an affected source where you are not using a CPMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (4) and paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, and malfunction when the affected source is operating.

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) and the corrective action taken.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)

(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report (pursuant to Table 10 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A) which includes all required information concerning deviations from any emission limitation (including any operating limit) or work practice requirement in this subpart, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(f) Upon notification to the Administrator that a tire production affected source has eliminated or reformulated cement and solvent so that the source can demonstrate compliance using the purchase alternative in §63.5985(a), future compliance reports for this affected source may be submitted annually.

(g) If acceptable to both the Administrator and you, you may submit reports and notifications electronically.

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### **§63.6011 What records must I keep?**

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) Records of performance tests as required in §63.10(b)(2)(viii).

(3) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(b) For each tire production affected source, you must keep the records specified in Table 9 to this subpart to show continuous compliance with each emission limit that applies to you.

(c) For each tire cord production affected source, you must keep the records specified in Table 11 to this subpart to show continuous compliance with each emission limit that applies to you.

(d) For each puncture sealant application affected source, you must keep the records specified in Table 13 to this subpart to show continuous compliance with each emission limit that applies to you.

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### **§63.6012 In what form and how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) 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, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

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## **OTHER REQUIREMENTS AND INFORMATION**

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### **§63.6013 What parts of the General Provisions apply to me?**

Table 17 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

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### **§63.6014 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA has delegated authority to your State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.5981 through 63.5984, 63.5986, and 63.5988.

(2) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

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### **§63.6015 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act and in §63.2, the General Provisions. The following are additional definitions of terms used in this subpart:

*As purchased* means the condition of a cement and solvent as delivered to the facility, prior to any mixing, blending, or dilution.

*Capture system* means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that conveys these emissions to a control device.

*Cements and solvents* means the collection of all organic chemicals, mixtures of chemicals, and compounds used in the production of rubber tires, including cements, solvents, and mixtures used as process aids. Cements and solvents include, but are not limited to, tread end cements, undertread cements, bead cements, tire building cements and solvents, green tire spray, blemish repair paints, side wall protective paints, marking inks, materials used to clean process equipment, and slab dip mixtures. Cements and solvents do not include coatings or process aids used in tire cord production, puncture sealant application, rubber processing, or materials used to construct, repair, or maintain process equipment, or chemicals and compounds that are not used in the tire production process such as materials used in routine janitorial or facility grounds maintenance, office supplies (e.g., dry-erase markers, correction fluid), architectural paint, or any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution to and use by the general public.

*Coating* means a compound or mixture of compounds that is applied to a fabric substrate in the tire cord production operation that allows the fabric to be prepared (e.g., by heating, setting, curing) for incorporation into a rubber tire.

*Components of rubber tires* means any piece or part used in the manufacture of rubber tires that becomes an integral portion of the rubber tire when manufacture is complete and includes mixed rubber compounds, sidewalls, tread, tire beads, and liners. Other components often associated with rubber tires such as wheels, valve stems, tire bladders and inner tubes are not considered components of rubber tires for the purposes of these standards. Tire cord and puncture sealant, although components of rubber tires, are considered as separate affected sources in these standards and are defined separately.

*Control device* means a combustion device, recovery device, recapture device, or any combination of these devices used for recovering or oxidizing organic hazardous air pollutant vapors. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators (oxidizers), flares, boilers, and process heaters.

*Control system efficiency* means the percent of total volatile organic compound emissions, as measured by EPA Method 25 or 25A (40 CFR part 60, appendix A), recovered or destroyed by a control device multiplied by the percent of total volatile organic compound emissions, as measured by Method 25 or 25A, that are captured and conveyed to the control device.

*Deviation* means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*Emission limitation* means any emission limit, opacity limit, operating limit, or visible emission limit.

*Fabric processed* means the amount of fabric coated and finished for use in subsequent product manufacturing.

*Mixed rubber compound* means the material, commonly referred to as rubber, from which rubber tires and components of rubber tires are manufactured. For the purposes of this definition, mixed rubber compound refers to the compound that leaves the rubber mixing process (e.g., banburys) and is then processed into components from which rubber tires are manufactured.

*Monthly operating period* means the period in the Notification of Compliance Status report comprised of the number of operating days in the month.

*Operating day* means the period defined in the Notification of Compliance Status report. It may be from midnight to midnight or a portion of a 24-hour period.

*Process aid* means a solvent, mixture, or cement used to facilitate or assist in tire component identification; component storage; tire building; tire curing; and tire repair, finishing, and identification.

*Puncture sealant* means a mixture that may include, but is not limited to, solvent constituents, mixed rubber compound, and process oil that is applied to the inner liner of a finished tire for the purpose of sealing any future hole which might occur in the tread when an object penetrates the tire.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Rubber* means the sum of the materials (for example, natural rubber, synthetic rubber, carbon black, oils, sulfur) that are combined in specific formulations for the sole purpose of making rubber tires or components of rubber tires.

*Rubber mixing* means the physical process of combining materials for use in rubber tire manufacturing to make mixed rubber compound using the collection of banburys and associated drop mills.

*Rubber tire* means a continuous solid or pneumatic cushion typically encircling a wheel and usually consisting, when pneumatic, of an external rubber covering.

*Rubber used* means the total mass of mixed rubber compound delivered to the tire production operations in a tire manufacturing facility (e.g., the collection of warm-up mills, extruders, calendars, tire building, or other tire component and tire manufacturing equipment).

*Tire cord* means any fabric (e.g., polyester, cotton) that is treated with a coating mixture that allows the fabric to more readily accept impregnation with rubber to become an integral part of a rubber tire.

[67 FR 45598, July 9, 2002, as amended at 68 FR 11747, Mar. 12, 2003]

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#### Table 1 to Subpart XXXX of Part 63—Emission Limits for Tire Production Affected Sources

As stated in §63.5984, you must comply with the emission limits for each new, reconstructed, or existing tire production affected source in the following table:

For each . . .	You must meet the following emission limits.
1. Option 1—HAP constituent option	a. Emissions of each HAP in Table 16 to this subpart must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total cements and solvents used at the tire production affected source, and b. Emissions of each HAP not in Table 16 to this subpart must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total cements and solvents used at the tire production affected source.
2. Option 2—production-based option	Emissions of HAP must not exceed 0.024 grams per megagram (0.00005 pounds per ton) of rubber used at the tire production affected source.

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#### Table 2 to Subpart XXXX of Part 63—Emission Limits for Tire Cord Production Affected Sources

As stated in §63.5986, you must comply with the emission limits for tire cord production affected sources in the following table:

For each . . .	You must meet the following emission limits.
1. Option 1.a (production-based option)—Existing tire cord production affected source	Emissions must not exceed 280 grams HAP per megagram (0.56 pounds per ton) of fabric processed at the tire cord production affected source.
2. Option 1.b (production-based option)—New or reconstructed tire cord production affected source	Emissions must not exceed 220 grams HAP per megagram (0.43 pounds per ton) of fabric processed at the tire cord production affected source.
3. Option 2 (HAP constituent option)—Existing, new or reconstructed tire cord production affected source	a. Emissions of each HAP in Table 16 to this subpart must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total coatings used at the tire cord production affected source, and



b. Emissions of each HAP not in Table 16 to this subpart must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total coatings used at the tire cord production affected source.

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**Table 3 to Subpart XXXX of Part 63—Emission Limits for Puncture Sealant Application Affected Sources**

As stated in §63.5988(a), you must comply with the emission limits for puncture sealant application affected sources in the following table:

For each . . .	You must meet the following emission limit.
1. Option 1.a (percent reduction option)—Existing puncture sealant application spray booth	Reduce spray booth HAP (measured as volatile organic compounds (VOC)) emissions by at least 86 percent by weight.
2. Option 1.b (percent reduction option)—New or reconstructed puncture sealant application spray booth	Reduce spray booth HAP (measured as VOC) emissions by at least 95 percent by weight.
3. Option 2 (HAP constituent option) Existing, new or reconstructed puncture sealant application spray booth	a. Emissions of each HAP in Table 16 to this subpart must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total puncture sealants used at the puncture sealant affected source, and b. Emissions of each HAP not in Table 16 to this subpart must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total puncture sealants used at the puncture sealant affected source.

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**Table 4 to Subpart XXXX of Part 63—Operating Limits for Puncture Sealant Application Control Devices**

As stated in §63.5988(b), you must comply with the operating limits for puncture sealant application affected sources in the following table unless you are meeting Option 2 (HAP constituent option) limits in Table 3 to this subpart:

For each . . .	You must . . .
1. Thermal oxidizer to which puncture sealant application spray booth emissions are ducted	Maintain the daily average firebox secondary chamber temperature within the operating range established during the performance test.
2. Carbon adsorber (regenerative) to which puncture sealant application spray booth emissions are ducted	a. Maintain the total regeneration mass, volumetric flow, and carbon bed temperature at the operating range established during the performance test. b. Reestablish the carbon bed temperature to the levels established during the performance test within 15 minutes of each cooling cycle.
3. Other type of control device to which puncture sealant application spray booth emissions are ducted	Maintain your operating parameter(s) within the range(s) established during the performance test and according to your monitoring plan.
4. Permanent total enclosure capture system	a. Maintain the face velocity across any NDO at least at the levels established during the performance test. b. Maintain the size of NDO, the number of NDO, and their proximity to HAP emission sources consistent with the parameters established during the performance test.
5. Other capture system	Maintain the operating parameters within the range(s) established during the performance test and according to your monitoring plan.

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**Table 5 to Subpart XXXX of Part 63—Requirements for Performance Tests**

As stated in §63.5993, you must comply with the requirements for performance tests in the following table:

If you are using . . .	You must . . .	Using . . .	According to the following requirements . . .
1. A thermal oxidizer	a. Measure total HAP emissions, determine destruction efficiency of the control device, and establish a site-specific firebox secondary chamber temperature limit at which the emission limit that applies to the affected source is achieved	i. Method 25 or 25A performance test and data from the temperature monitoring system	(1). Measure total HAP emissions and determine the destruction efficiency of the control device using Method 25 (40 CFR part 60, appendix A). You may use Method 25A (40 CFR part 60, appendix A) if: an exhaust gas volatile organic matter concentration of 50 parts per million (ppmv) or less is required to comply with the standard; the volatile organic matter concentration at the inlet to the control system and the required level of control are such that exhaust volatile organic matter concentrations are 50 ppmv or less; or because of the high efficiency of the control device exhaust, is 50 ppmv or less, regardless of the inlet concentration. (2). Collect firebox secondary chamber temperature data every 15 minutes during the entire period of the initial 3-hour performance test, and determine the average firebox temperature over the 3-hour performance test by computing the average of all of the 15-minute reading.
2. A carbon adsorber (regenerative)	a. Measure total organic HAP emissions, establish the total regeneration mass or volumetric flow, and establish the temperature of the carbon bed within 15 minutes of completing any cooling cycles. The total regeneration mass, volumetric flow, and carbon bed temperature must be those at which the emission limit that applies to the affected source is achieved	i. Method 25 or Method 25A performance test and data from the carbon bed temperature monitoring device	(1). Measure total HAP emissions using Method 25. You may use Method 25A, if an exhaust gas volatile organic matter concentration of 50 ppmv or less; or because of the high efficiency of the control device, exhaust is 50 ppmv or less is required to comply with the standard; the volatile organic matter concentration (VOMC) at the inlet to the control system and the required level of control are such that exhaust VOMCs are 50 ppmv or less; or because of the high efficiency of the control device, exhaust is 50 ppmv or less, regardless of the inlet concentration. (2). Collect carbon bed total regeneration mass or volumetric flow for each carbon bed regeneration cycle during the performance test. (3). Record the maximum carbon bed temperature data for each carbon

			bed regeneration cycle during the performance test. (4). Record the carbon bed temperature within 15 minutes of each cooling cycle during the performance test. (5). Determine the average total regeneration mass or the volumetric flow over the 3-hour performance test by computing the average of all of the readings. (6). Determine the average maximum carbon bed temperature over the 3-hour performance test by computing the average of all of the readings. (7). Determine the average carbon bed temperature within 15 minutes of the cooling cycle over the 3-hour performance test.
3. Any control device other than a thermal oxidizer or carbon adsorber	Determine control device efficiency and establish operating parameter limits with which you will demonstrate continuous compliance with the emission limit that applies to the affected source	EPA-approved methods and data from the continuous parameter monitoring system	Conduct the performance test according to the site-specific plan submitted according to §63.7(c)(2)(i).
4. All control devices	a. Select sampling ports' location and the number of traverse ports	Method 1 or 1A of 40 CFR part 60, appendix A	Locate sampling sites at the inlet and outlet of the control device and prior to any releases to the atmosphere.
	b. Determine velocity and volumetric flow rate	Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A	
	c. Conduct gas analysis	Method 3, 3A, or 3B of 40 CFR part 60 appendix A	
	d. Measure moisture content of the stack gas	Method 4 of 40 CFR part 60, appendix A	
5. A permanent total enclosure (PTE)	Measure the face velocity across natural draft openings and document the design features of the enclosure	Method 204 of CFR part 51, appendix M	Capture efficiency is assumed to be 100 percent if the criteria are met
6. Temporary total enclosure (TTE)	Construct a temporarily installed enclosure that allows you to determine the efficiency of your capture system and establish operating parameter limits	Method 204 and the appropriate combination of Methods 204A-204F of 40 CFR part 51, appendix M	

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**Table 6 to Subpart XXXX of Part 63—Initial Compliance With the Emission Limits for Tire Production Affected Sources**

As stated in §63.5996, you must show initial compliance with the emission limits for tire production affected sources according to the following table:

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Sources complying with the purchase compliance alternative in §63.5985(a)	The HAP constituent option in Table 1 to this subpart, option 1	You demonstrate for each monthly period that no cements and solvents were purchased and used at the affected source containing HAP in amounts above the composition limits in Table 1 to this subpart, option 1, determined according to the procedures in §63.5994 (a) and (b)(1).
2. Sources complying with the monthly average compliance alternative without using a control device in §63.5985(b)	The HAP constituent option in Table 1 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in §63.5994(a) and (b)(2).
3. Sources complying with the monthly average compliance alternative using a control device in §63.5985(c)	The HAP constituent option in Table 1 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in §63.5994(a), (b)(3) and (4), and (d) through (f).
4. Sources complying with the monthly average compliance alternative without use of a control device in §63.5985(b)	The production-based option in Table 1 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in §63.5994(c)(1) through (3).
5. Sources complying with the monthly average compliance alternative using a control device in §63.5985(c)	The production-based option in Table 1 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in §63.5994(c)(1) and (2), (4) and (5), and (d) through (f).

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**Table 7 to Subpart XXXX of Part 63—Initial Compliance With the Emission Limits for Tire Cord Production Affected Sources**

As stated in §63.5999, you must show initial compliance with the emission limits for tire cord production affected sources according to the following table:

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Sources complying with the monthly average alternative without using an add-on control device according to §63.5987 (a)	The production-based option in Table 2 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the procedures in §63.5997(a), (b)(1) and (2).

2. Sources complying with the monthly average alternative using an add-on control device according to §63.5987(b)	The production-based option in Table 2 to this subpart, option 1	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the procedures in §63.5997(a), (b)(1) and (3) through (4), and (d) through (f).
3. Sources complying with the monthly average alternative without using an add-on control device according to §63.5987(a)	The HAP constituent option in Table 2 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in §63.5997(a) and (c)(1) and (2).
4. Sources complying with the monthly average alternative using an add-on control device according to §63.5987(b)	The HAP constituent option in Table 2 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in §63.5997(c)(1) and (3) through (4), and (d) through (f).

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**Table 8 to Subpart XXXX of Part 63—Initial Compliance With the Emission**

As stated in §63.6002, you must show initial compliance with the emission limits for puncture sealant application affected sources according to the following table:

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Sources complying with the overall control efficiency alternative in §63.5989(a)	The percent reduction option in Table 3 to this subpart, option 1	You demonstrate that you conducted the performance tests, determined the overall efficiency of your control system, demonstrated that the applicable limits in Table 3 to this subpart, option 1, have been achieved, and established the operating limits in Table 4 of this subpart for your equipment according to the applicable procedures in §63.6000(b).
2. Sources complying with the permanent total enclosure and control device efficiency alternative in §63.5989(b)	The percent reduction option in Table 3 to this subpart, option 1	You demonstrate that you conducted the performance tests, determined the individual efficiencies of your capture and control systems, demonstrated that the applicable limits in Table 3 to this subpart, option 1, have been achieved, and established the operating limits in Table 4 of this subpart for your equipment according to the applicable procedures in §63.6000(b).
3. Sources complying with the monthly average alternative in §63.5989(c) without using an add-on control device	The HAP constituent option in Table 3 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in §63.6000(c) and (d)(1).
4. Sources complying with the HAP constituent alternative in §63.5989(d) by using an add-on control device	The HAP constituent option in Table 3 to this subpart, option 2	You demonstrate that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in §63.6000(c), (d)(2) and (3), and (e) through (f).

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**Table 9 to Subpart XXXX of Part 63—Minimum Data for Continuous Compliance With the Emission Limits for Tire Production Affected Sources**

As stated in §63.6003, you must maintain minimum data to show continuous compliance with the emission limits for tire production affected sources according to the following table:

For . . .	You must maintain . . .
1. Sources complying with purchase compliance alternative in §63.5985(a) that are meeting the HAP constituent emission limit (option 1) in Table 1 to this subpart	a. A list of each cement and solvent as purchased and the manufacturer or supplier of each. b. A record of Method 311 (40 CFR part 60, appendix A), or approved alternative method, test results indicating the mass percent of each HAP for each cement and solvent as purchased.
2. Sources complying with the monthly average compliance alternative without using a control device according to §63.5985(b) that are meeting emission limits in Table 1 to this subpart	a. A record of Method 311, or approved alternative method, test results, indicating the mass percent of each HAP for each cement and solvent, as purchased. b. The mass of each cement and solvent used each monthly operating period. c. The total mass of rubber used each monthly operating period (if complying with the production-based emission limit, option 2, in Table 1 to this subpart). d. All data and calculations used to determine the monthly average mass percent for each HAP for each monthly operating period. e. Monthly averages of emissions in the appropriate emission limit format.
3. Sources complying with the monthly average compliance alternative using a control device according to §63.5985(c) that are meeting emission limits in Table 1 to this subpart	a. The same information as sources complying with the monthly average alternative without using a control device. b. Records of operating parameter values for each operating parameter that applies to you.

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**Table 10 to Subpart XXXX of Part 63—Continuous Compliance With the Emission Limits for Tire Production Affected Sources**

As stated in §63.6004, you must show continuous compliance with the emission limits for tire production affected sources according to the following table:

For . . .	For the following emission limit . . .	You must demonstrate continuous compliance by . . .
1. Sources complying with purchase compliance alternative in §63.5985(a)	The HAP constituent option in Table 1 to this subpart, option 1	Demonstrating for each monthly period that no cements and solvents were purchased and used at the affected source containing HAP in amounts above the composition

		limits in Table 1 to this subpart, option 1, determined according to the procedures in §63.5994(a) and (b)(1).
2. Sources complying with the monthly average compliance alternative without using a control device according to §63.5985(b)	The HAP constituent option in Table 1 to this subpart, option 1	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in §63.5994(a) and (b)(2).
3. Sources complying with the monthly average compliance alternative using a control device according to §63.5985(c)	The HAP constituent option in Table 1 to this subpart, option 1	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 1, determined according to the applicable procedures in §63.5994(a), (b)(3) and (4), and (d) through (f).
4. Sources complying with the monthly average compliance alternative without using a control device according to §63.5985(b)	The production-based option in Table 1 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in §63.5994(c)(1) through (3).
5. Sources complying with the monthly average compliance alternative using a control device according to §63.5985(c)	The production-based option in Table 1 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 1 to this subpart, option 2, determined according to the applicable procedures in §63.5994(c)(1) and (2), (4) and (5), and (d) through (f).

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#### Table 11 to Subpart XXXX of Part 63—Minimum Data for Continuous Compliance With the Emission Limits for Tire Cord Production Affected Sources

As stated in §63.6005, you must maintain minimum data to show continuous compliance with the emission limits for tire cord production affected sources according to the following table:

For . . .	You must maintain . . .
1. Sources complying with the monthly average alternative without using an add-on control device according to §63.5987(a) that are meeting emission limits in Table 2 to this subpart	a. A record of Method 311 (40 CFR part 63, appendix A), or approved alternative method, test results, indicating the mass percent of each HAP for coating used. b. The mass of each coating used each monthly operating period. c. The total mass of fabric processed each monthly operating period (if complying with the production-based option in Table 2 to this subpart, option 1). d. All data and calculations used to determine the monthly average mass percent for each HAP for each monthly operating period. e. Monthly averages of emissions in the appropriate emission limit format.
2. Sources complying with the monthly average alternative using an add-on control device according to §63.5987(b) that are meeting emission limits in Table 2 to this subpart	a. The same information as sources complying with the monthly average alternative without using a control device. b. Records of operating parameter values for each operating parameter that applies to you.

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#### Table 12 to Subpart XXXX of Part 63—Continuous Compliance With the Emission Limits for Tire Cord Production Affected Sources

As stated in §63.6006, you must show continuous compliance with the emission limits for tire cord production affected sources according to the following table:

For . . .	For the following emission limit . . .	You must demonstrate continuous compliance by . . .
1. Sources complying with the monthly average compliance alternative without using an add-on control device according to §63.5987(a)	In Table 2 to this subpart	a. Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the applicable procedures in §63.5997(a) and (b)(1) and (2). b. Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in §63.5997(a) and (c)(1) and (2).
2. Sources complying with the monthly average compliance alternative using an add-on control device according to §63.5987(b)	In Table 2 to this subpart	a. Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the emission limits in Table 2 to this subpart, option 1, determined according to the applicable procedures in §63.5997(a), (b)(1) and (3) through (4), and (d) through (f). b. Demonstrating that the monthly HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 2 to this subpart, option 2, determined according to the applicable procedures in §63.5997(c)(1) and (3) through (4), and (d) through (f).

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#### Table 13 to Subpart XXXX of Part 63—Minimum Data for Continuous Compliance With the Emission Limitations for Puncture Sealant Application Affected Sources

As stated in §63.6007, you must maintain minimum data to show continuous compliance with the emission limitations for puncture sealant application affected sources according to the following table:

For . . .	You must maintain . . .
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1. Sources complying with the control efficiency alternatives in §63.5989(a) or (b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using a thermal oxidizer to reduce HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of the secondary chamber firebox temperature for 100 percent of the hours during which the process was operated.
2. Sources complying with the control efficiency alternatives in §63.5989(a) or (b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using a carbon adsorber to reduce HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of the total regeneration stream mass or volumetric flow for each regeneration cycle for 100 percent of the hours during which the process was operated, and a record of the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle for 100 percent of the hours during which the process was operated.
3. Sources complying with the control efficiency alternatives in §63.5989(a) or (b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using any other type of control device to which puncture sealant application spray booth HAP emissions are ducted so that they do not exceed the operating limits in Table 4 to this subpart	Records of operating parameter values for each operating parameter that applies to you.
4. Sources complying with the permanent total enclosure compliance alternative in §63.5989(b) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using a permanent total enclosure capture system to capture HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of the face velocity across any NDO, the size of NDO, the number of NDO, and their proximity to HAP emission sources.
5. Sources complying with the overall control efficiency alternative in §63.5989(a) that are meeting the percent reduction emission limits in Table 3 to this subpart, option 1, using any other capture system to capture HAP emissions so that they do not exceed the operating limits in Table 4 to this subpart	Records of operating parameter values for each operating parameter that applies to you.
6. Sources complying with the monthly average alternative without using an add-on control device according to §63.5988(a) that are meeting the HAP constituent emission limits in Table 3 to this subpart, option 2	<p>a. A record of Method 311 (40 CFR part 63, appendix A), or approved alternative method, test results, indicating the mass percent of each HAP for puncture sealant used.</p> <p>b. The mass of each puncture sealant used each monthly operating period.</p> <p>c. All data and calculations used to determine the monthly average mass percent for each HAP for each monthly operating period.</p> <p>d. Monthly averages of emissions in the appropriate emission limit format.</p>
7. Sources complying with the monthly average alternative using an add-on control device according to §63.5988(a) that are meeting the HAP constituent emission limits in Table 3 to this subpart, option 2	<p>a. The same information as sources complying with the monthly average alternative that are not using a control device.</p> <p>b. Records of operating parameter values for each operating parameter that applies to you.</p>

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**Table 14 to Subpart XXXX of Part 63—Continuous Compliance With the Emission Limitations for Puncture Sealant Application Affected Sources**

As stated in §63.6008, you must show continuous compliance with the emission limitations for puncture sealant application affected sources according to the following table:

For . . .	You must demonstrate continuous compliance by . . .
1. Each carbon adsorber used to comply with the operating limits in Table 4 to this subpart	<p>a. Monitoring and recording every 15 minutes the total regeneration stream mass or volumetric flow, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle, and</p> <p>b. Maintaining the total regeneration stream mass or volumetric flow, and the carbon bed temperature after each regeneration, and within 15 minutes of completing any cooling cycle within the operating levels established during your performance test.</p>
2. Each thermal oxidizer used to comply with operating limits in Table 4 to this subpart	<p>a. Continuously monitoring and recording the firebox temperature every 15 minutes, and</p> <p>b. Maintaining the daily average firebox temperature within the operating level established during your performance test.</p>
3. Other "add-on" control or capture system hardware used to comply with the operating limits in Table 4 to this subpart	Continuously monitoring and recording specified parameters identified through compliance testing and identified in the Notification of Compliance Status report.
4. Sources complying with the monthly average compliance alternative without using an add-on control device according to §63.5989(c) that are meeting the HAP constituent emission limits in Table 3 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in §63.6000(c) and (d)(1).
5. Sources complying with the monthly average compliance alternative by using an add-on control device according to §63.5989(d) that are the HAP constituent emission limits in Table 3 to this subpart, option 2	Demonstrating that the monthly average HAP emissions for each monthly operating period do not exceed the HAP constituent emission limits in Table 3 to this subpart, option 2, determined according to the applicable procedures in §63.6000(c), (d)(2) and (3), and (e) through (g).

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**Table 15 to Subpart XXXX of Part 63—Requirements for Reports**

As stated in §63.6010, you must submit each report that applies to you according to the following table:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	<p>a. If there are no deviations from any emission limitations that apply to you, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which the CPMS was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period</p> <p>b. If you have a deviation from any emission limitation during the reporting period at an affected source where you are not using a CPMS, the report must contain the information in §63.6010(d). If the deviation occurred at a source where you are using a CPMS or if there were periods during which the</p>	<p>Semiannually according to the requirements in §63.6010(b), unless you meet the requirements for annual reporting in §63.6010(f).</p> <p>Semiannually according to the requirements in §63.6010(b), unless you meet the requirements for annual reporting in §63.6010(f).</p>

	CPMS were out-of-control as specified in §63.8(c)(7), the report must contain the information required by §63.5990(f)(3)	
	c. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i)	Semiannually according to the requirements in §63.6010(b), unless you meet the requirements for annual reporting in §63.6010(f).
2. Immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan.	a. Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	b. The information in §63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§63.10(d)(5)(ii)).

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**Table 16 to Subpart XXXX of Part 63—Selected Hazardous Air Pollutants**

You must use the information listed in the following table to determine which emission limit in the HAP constituent options in Tables 1 through 3 to this subpart is applicable to you:

CAS No.	Selected hazardous air pollutants
50000	Formaldehyde
51796	Ethyl carbamate (Urethane)
53963	2-Acetylaminofluorene
56235	Carbon tetrachloride
57147	1,1-Dimethyl hydrazine
57578	beta-Propiolactone
58899	Lindane (all isomers)
59892	N-Nitrosomorpholine
60117	Dimethyl aminoazobenzene
62759	N-Nitrosodimethylamine
64675	Diethyl sulfate
67663	Chloroform
67721	Hexachloroethane
71432	Benzene (including benzene from gasoline)
75014	Vinyl chloride
75070	Acetaldehyde
75092	Methylene chloride (Dichloromethane)
75218	Ethylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
75569	Propylene oxide
77781	Dimethyl sulfate
79061	Acrylamide
79447	Dimethyl carbamoyl chloride
79469	2-Nitropropane
88062	2,4,6-Trichlorophenol
91941	3,3-Dichlorobenzidene
92671	4-Aminobiphenyl
92875	Benzidine
95534	o-Toluidine
95807	2,4-Toluene diamine
96128	1,2-Dibromo-3-chloropropane
96457	Ethylene thiourea
98077	Benzotrachloride
101144	4,4-Methylene bis(2-chloroaniline)
101779	4,4-Methylenedianiline
106467	1,4-Dichlorobenzene(p)
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106934	Ethylene dibromide (Dibromoethane)
106990	1,3-Butadiene
107062	Ethylene dichloride (1,2-Dichloroethane)
107131	Acrylonitrile
107302	Chloromethyl methyl ether
117817	Bis(2-ethylhexyl)phthalate (DEHP)
118741	Hexachlorobenzene
119904	3,3-Dimethoxybenzidine
119937	3,3-Dimethyl benzidine
122667	1,2-Diphenylhydrazine
123911	1,4-Dioxane (1,4-Diethyleneoxide)
127184	Tetrachloroethylene (Perchloroethylene)

140885	Ethyl acrylate
302012	Hydrazine
542756	1,3-Dichloropropene
542881	Bis(chloromethyl)ether
680319	Hexamethylphosphoramide
684935	N-Nitroso-N-methylurea
1120714	1,3-Propane sultone
1332214	Asbestos
1336363	Polychlorinated biphenyls (Aroclors)
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
8001352	Toxaphene (chlorinated camphene)
	Arsenic Compounds
	Chromium Compounds
	Coke Oven Emissions

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**Table 17 to Subpart XXXX of Part 63—Applicability of General Provisions to This Subpart XXXX**

As stated in §63.6013, you must comply with the applicable General Provisions (GP) requirements according to the following table:

Citation	Subject	Brief description of applicable sections	Applicable to Subpart XXXX?	
			Using a control device	Not using a control device
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions; notifications	Yes	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes	Yes.
§63.4	Prohibited Activities	Prohibited activities; compliance date; circumvention; severability	Yes	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes	Yes.
§63.6(a)	Applicability	GP apply unless compliance extension; GP apply to area sources that become major	Yes	Yes.
§63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f)	Yes	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes	Yes.
§63.6(b)(6)	[Reserved]			
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources that Become Major		No	No.
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes	Yes.
§63.6(c)(3)-(4)	[Reserved]			
§63.6(c)(5)	Compliance Dates for Existing Area Sources that Become Major	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years)	Yes	Yes.
§63.6(d)	[Reserved]			
§63.6(e)(1)-(2)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; and operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes	Yes.
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)		Yes	No.
§63.6(f)(1)	Compliance Except During SSM		Yes	No.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test; operation and maintenance plans; records; inspection	Yes	Yes.
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes	Yes.
§63.6(h)	Opacity/Visible Emission (VE) Standards		No	No.
§63.6(i)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes	Yes.
§63.7(a)(1)-(2)	Performance Test Dates		No	No.
§63.7(a)(3)	CAA section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes	No.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes	No.
§63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date	Yes	No.
§63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; performance audit requirements; and internal and external quality assurance procedures for testing	Yes	No.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes	No.

§63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM; not a violation to exceed standard during SSM	Yes	No.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative	Yes	No.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used	Yes	No.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method	Yes	No.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status report; and keep data for 5 years	Yes	No.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes	No.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes	No.
§63.8(a)(3)	[Reserved]			
§63.8(a)(4)	Monitoring with Flares		No	No.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes	Yes.
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes	Yes.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Applies as modified by §63.5990(e) and (f)	No.
§63.8(c)(1)(i)	Routine and Predictable SSM		No	No.
§63.8(c)(1)(ii)	SSM not in SSMP		No	No.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	How Administrator determines if source complying with operation and maintenance requirements; review of source operation and maintenance procedures, records, manufacturer's instructions, recommendations, and inspection of monitoring system	Yes	Yes.
§63.8(c)(2)-(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements; must verify operational status before or at performance test	Yes	No.
§63.8(c)(4)	Continuous Monitoring System (CMS) Requirements		Applies as modified by §63.5990(f)	No.
§63.8(c)(5)	Continuous Opacity Monitoring Systems (COMS) Minimum Procedures		No	No.
§63.8(c)(6)	CMS Requirements		Applies as modified by §63.5990(e)	No.
§63.8(c)(7)-(8)	CMS Requirements	Out-of-control periods, including reporting	Yes	No.
§63.8(d)	CMS Quality Control		Applies as modified by §63.5990(e) and (f)	No.
§63.8(e)	CMS Performance Evaluation		No	No.
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes	Yes.
§63.8(f)(6)	Alternative to Relative Accuracy Test		No	No.
§63.8(g)	Data Reduction		Applies as modified by §63.5990(f)	No.
§63.9(a)	Notification Requirements	Applicability and state delegation	Yes	Yes.
§63.9(b)(1)-(5)	Initial Notifications	Submit notification 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construct/reconstruct, notification of startup; and contents of each	Yes	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes	No.
§63.9(f)	Notification of VE/Opacity Test	No	No	
§63.9(g)	Additional Notifications When Using CMS	No	No	
§63.9(h)	Notification of Compliance Status	Contents; due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes	Yes.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes	Yes.
§63.10(a)	Recordkeeping/Reporting		Yes	Yes.



		Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than 1 source		
§63.10(b)(1)	Recordkeeping/Reporting	General Requirements; keep all records readily available; and keep for 5 years.	Yes	Yes.
§63.10(b)(2)(i)-(iv)	Records related to Startup, Shutdown, and Malfunction.	Yes	No	
§63.10(b)(2)(vi) and (x)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control; calibration checks; adjustments, maintenance	Yes	No.
§63.10(b)(2)(vii)-(ix)	Records	Measurements to demonstrate compliance with emission limitations; performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations	Yes	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes	Yes.
§63.10(b)(2)(xiii)	Records		No	No.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes	Yes.
§63.10(c)	Records		No	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes	No.
§63.10(d)(3)	Reporting Opacity or VE Observations		No	No.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes	Yes.
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports		Yes	No.
§63.10(e)	Additional CMS Reports		No	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes	Yes.
§63.11	Flares		No	No.
§63.12	Delegation	State authority to enforce standards	Yes	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes	Yes.
§63.15	Availability of Information	Public and confidential information	Yes	Yes.

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Need assistance?

## Appendix C

40 C.F.R. § 60, Subpart Dc – *Standards of Performance for Industrial-Commercial-Institutional  
Steam Generating Units*



# ELECTRONIC CODE OF FEDERAL REGULATIONS

**e-CFR data is current as of December 9, 2015**

Title 40 → Chapter I → Subchapter C → Part 60 → Subpart Dc

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

## Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

### Contents

- §60.40c Applicability and delegation of authority.
- §60.41c Definitions.
- §60.42c Standard for sulfur dioxide (SO<sub>2</sub>).
- §60.43c Standard for particulate matter (PM).
- §60.44c Compliance and performance test methods and procedures for sulfur dioxide.
- §60.45c Compliance and performance test methods and procedures for particulate matter.
- §60.46c Emission monitoring for sulfur dioxide.
- §60.47c Emission monitoring for particulate matter.
- §60.48c Reporting and recordkeeping requirements.

SOURCE: 72 FR 32759, June 13, 2007, unless otherwise noted.

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### §60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Affected facilities (*i.e.* heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO<sub>x</sub> standards under this subpart and the SO<sub>2</sub> standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

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#### **§60.41c Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

*Combined cycle system* means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

*Combustion research* means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.*, the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

*Conventional technology* means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

*Distillate oil* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see §60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see §60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see §60.17).

*Dry flue gas desulfurization technology* means a SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

*Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

*Emerging technology* means any SO<sub>2</sub> control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

*Fluidized bed combustion technology* means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

*Fuel pretreatment* means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*Maximum design heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

*Natural gas* means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

*Noncontinental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Oil* means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

*Potential sulfur dioxide emission rate* means the theoretical SO<sub>2</sub> emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

*Residual oil* means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Steam generating unit* means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Temporary boiler* means a steam generating unit that combusts natural gas or distillate oil with a potential SO<sub>2</sub> emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

*Wet flue gas desulfurization technology* means an SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO<sub>2</sub>.

*Wood* means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

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#### **§60.42c Standard for sulfur dioxide (SO<sub>2</sub>).**

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO<sub>2</sub> emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO<sub>2</sub> emissions limit or the 90 percent SO<sub>2</sub> reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO<sub>2</sub> emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 50 percent (0.50) of the potential SO<sub>2</sub> emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO<sub>2</sub> reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/h) or less;

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area; or

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the following:

(1) The percent of potential SO<sub>2</sub> emission rate or numerical SO<sub>2</sub> emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

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Where:

E<sub>s</sub> = SO<sub>2</sub> emission limit, expressed in ng/J or lb/MMBtu heat input;

K<sub>a</sub> = 520 ng/J (1.2 lb/MMBtu);

K<sub>b</sub> = 260 ng/J (0.60 lb/MMBtu);

K<sub>c</sub> = 215 ng/J (0.50 lb/MMBtu);

H<sub>a</sub> = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H<sub>b</sub> = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H<sub>c</sub> = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO<sub>2</sub> emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO<sub>2</sub> emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO<sub>2</sub> control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).



(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(i) The SO<sub>2</sub> emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

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### **§60.43c Standard for particulate matter (PM).**

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February

28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO<sub>2</sub> emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

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#### **§60.44c Compliance and performance test methods and procedures for sulfur dioxide.**

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c is based on the average percent reduction and the average SO<sub>2</sub> emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO<sub>2</sub> emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO<sub>2</sub> emission rate ( $E_{ho}$ ) and the 30-day average SO<sub>2</sub> emission rate ( $E_{ao}$ ). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate  $E_{ao}$  when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted  $E_{ho}$  ( $E_{hoO}$ ) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted  $E_{ao}$  ( $E_{aoO}$ ). The  $E_{hoO}$  is computed using the following formula:

$$E_{hoO} = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

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Where:

$E_{hoO}$  = Adjusted  $E_{ho}$ , ng/J (lb/MMBtu);

$E_{ho}$  = Hourly SO<sub>2</sub> emission rate, ng/J (lb/MMBtu);

$E_w$  = SO<sub>2</sub> concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure  $E_w$  if the owner or operator elects to assume  $E_w = 0$ .

$X_k$  = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters  $E_w$  or  $X_k$  if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO<sub>2</sub> emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO<sub>2</sub> emission rate is computed using the following formula:

$$\%P_s = 100 \left( 1 - \frac{\%R_f}{100} \right) \left( 1 - \frac{\%R_g}{100} \right)$$

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Where:

$\%P_s$  = Potential SO<sub>2</sub> emission rate, in percent;

$\%R_g$  = SO<sub>2</sub> removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$  = SO<sub>2</sub> removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the  $\%P_s$ , an adjusted  $\%R_g$  ( $\%R_{go}$ ) is computed from  $E_{ao}$  from paragraph (e)(1) of this section and an adjusted average SO<sub>2</sub> inlet rate ( $E_{aiO}$ ) using the following formula:

$$\%R_{go} = 100 \left( 1 - \frac{E_{ao}}{E_{aiO}} \right)$$

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Where:

$\%R_{go}$  = Adjusted  $\%R_g$ , in percent;

$E_{ao}$  = Adjusted  $E_{ao}$ , ng/J (lb/MMBtu); and

$E_{aiO}$  = Adjusted average SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu).

(ii) To compute  $E_{aiO}$ , an adjusted hourly SO<sub>2</sub> inlet rate ( $E_{hiO}$ ) is used. The  $E_{hiO}$  is computed using the following formula:

$$E_{hiO} = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

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Where:

$E_{hiO}$  = Adjusted  $E_{hi}$ , ng/J (lb/MMBtu);

$E_{hi}$  = Hourly SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu);

$E_w$  = SO<sub>2</sub> concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure  $E_w$  if the owner or operator elects to assume  $E_w = 0$ ; and

$X_k$  = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent

sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO<sub>2</sub> standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO<sub>2</sub> emissions data in calculating %P<sub>s</sub> and E<sub>ho</sub> under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P<sub>s</sub> or E<sub>ho</sub> pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

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#### **§60.45c Compliance and performance test methods and procedures for particulate matter.**

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O<sub>2</sub> or CO<sub>2</sub> measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A-4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O<sub>2</sub> (or CO<sub>2</sub>) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O<sub>2</sub> (or CO<sub>2</sub>), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in §60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.*, reference

method) data and performance test (*i.e.*, compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see [http://www.epa.gov/ttn/chief/ert/ert\\_tool.html/](http://www.epa.gov/ttn/chief/ert/ert_tool.html/)) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

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#### **§60.46c Emission monitoring for sulfur dioxide.**

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO<sub>2</sub> emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at the outlet of the SO<sub>2</sub> control device (or the outlet of the steam generating unit if no SO<sub>2</sub> control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at both the inlet and outlet of the SO<sub>2</sub> control device.

(b) The 1-hour average SO<sub>2</sub> emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO<sub>2</sub> emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO<sub>2</sub> emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO<sub>2</sub> CEMS at the inlet to the SO<sub>2</sub> control device shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted, and the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device shall be 50 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO<sub>2</sub> input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO<sub>2</sub> at the inlet or outlet of the SO<sub>2</sub> control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part

sampling location. The stratification test shall consist of three paired runs of a suitable SO<sub>2</sub> and CO<sub>2</sub> measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

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#### **§60.47c Emission monitoring for particulate matter.**

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.*, 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the

occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.*, 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.*, 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours



of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An owner or operator of an affected facility that is subject to an opacity standard in §60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section §60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section §60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under §60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

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#### **§60.48c Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO<sub>2</sub> emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO<sub>2</sub> emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO<sub>2</sub> emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

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## Appendix D

40 C.F.R. § 63, Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*



## ELECTRONIC CODE OF FEDERAL REGULATIONS

**e-CFR data is current as of December 9, 2015**

Title 40 → Chapter I → Subchapter C → Part 63 → Subpart ZZZZ

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

### Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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SOURCE: 69 FR 33506, June 15, 2004, unless otherwise noted.

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## WHAT THIS SUBPART COVERS

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### §63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

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### §63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

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### **§63.6590 What parts of my plant does this subpart cover?**

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

#### **(1) Existing stationary RICE.**

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.



(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

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### **§63.6595 When do I have to comply with this subpart?**

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the

applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

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## EMISSION AND OPERATING LIMITATIONS

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### **§63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of

more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

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**§63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

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**§63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[78 FR 6701, Jan. 30, 2013]

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**§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

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#### **§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?**

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel

fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

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## GENERAL COMPLIANCE REQUIREMENTS

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### **§63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

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## TESTING AND INITIAL COMPLIANCE REQUIREMENTS

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### **§63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

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**§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?**

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

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**§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

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**§63.6615 When must I conduct subsequent performance tests?**

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

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**§63.6620 What performance tests and other procedures must I use?**

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7

(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

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Where:

$C_i$  = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

$C_o$  = concentration of CO, THC, or formaldehyde at the control device outlet, and

$R$  = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide ( $\text{CO}_2$ ). If pollutant concentrations are to be corrected to 15 percent oxygen and  $\text{CO}_2$  concentration is measured in lieu of oxygen concentration measurement, a  $\text{CO}_2$  correction factor is needed. Calculate the  $\text{CO}_2$  correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

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Where:

$F_o$  = Fuel factor based on the ratio of oxygen volume to the ultimate  $\text{CO}_2$  volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19,  $\text{dsm}^3/\text{J}$  ( $\text{dscf}/10^6 \text{ Btu}$ ).

$F_c$  = Ratio of the volume of  $\text{CO}_2$  produced to the gross calorific value of the fuel from Method 19,  $\text{dsm}^3/\text{J}$  ( $\text{dscf}/10^6 \text{ Btu}$ )

(ii) Calculate the  $\text{CO}_2$  correction factor for correcting measurement data to 15 percent  $\text{O}_2$ , as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

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Where:

$X_{\text{CO}_2}$  =  $\text{CO}_2$  correction factor, percent.

5.9 = 20.9 percent  $\text{O}_2$ —15 percent  $\text{O}_2$ , the defined  $\text{O}_2$  correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent  $\text{O}_2$  using  $\text{CO}_2$  as follows:

$$C_{adj} = C_d \frac{X_{\text{CO}_2}}{X_{\text{CO}_2}} \quad (\text{Eq. 4})$$

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Where:

$C_{adj}$  = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent  $O_2$ .

$C_d$  = Measured concentration of CO, THC, or formaldehyde, uncorrected.

$X_{CO_2}$  =  $CO_2$  correction factor, percent.

% $CO_2$  = Measured  $CO_2$  concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) 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;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]



### **§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O<sub>2</sub> or CO<sub>2</sub> according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO<sub>2</sub> concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop

your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

- (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
- (2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
- (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
- (4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
- (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
- (6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.
- (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
- (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
- (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
- (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

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### **§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?**

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

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## **CONTINUOUS COMPLIANCE REQUIREMENTS**

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### **§63.6635 How do I monitor and collect data to demonstrate continuous compliance?**

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

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### **§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal

to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) 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:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(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.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(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.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

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## NOTIFICATIONS, REPORTS, AND RECORDS

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### §63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

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#### **§63.6650 What reports must I submit and when?**

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.



(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(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 March 31 of the following calendar year.

(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) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). 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 §63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

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### **§63.6655 What records must I keep?**

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

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### **§63.6660 In what form and how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

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## **OTHER REQUIREMENTS AND INFORMATION**

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### **§63.6665 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

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### **§63.6670 Who implements and enforces this subpart?**

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

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### **§63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

*Alaska Railbelt Grid* means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

*Area source* means any stationary source of HAP that is not a major source as defined in part 63.

*Associated equipment* as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

*Backup power for renewable energy* means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

*Black start engine* means an engine whose only purpose is to start up a combustion turbine.

*CAA* means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Stat. 2399).

*Commercial emergency stationary RICE* means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Custody transfer* means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

*Diesel engine* means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (e.g. biodiesel) that is suitable for use in compression ignition engines.

*Digester gas* means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO<sub>2</sub>.

*Dual-fuel engine* means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

*Emergency stationary RICE* means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §63.6640(f)(2)(ii) or (iii) and §63.6640(f)(4)(i) or (ii).

*Engine startup* means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

*Four-stroke engine* means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

*Gaseous fuel* means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

*Gasoline* means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

*Glycol dehydration unit* means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

*Hazardous air pollutants (HAP)* means any air pollutants listed in or pursuant to section 112(b) of the CAA.

*Institutional emergency stationary RICE* means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

*ISO standard day conditions* means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

*Landfill gas* means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

*Lean burn engine* means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

*Limited use stationary RICE* means any stationary RICE that operates less than 100 hours per year.

*Liquefied petroleum gas* means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

*Liquid fuel* means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

*Major Source*, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Natural gas* means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

*Non-selective catalytic reduction (NSCR)* means an add-on catalytic nitrogen oxides (NO<sub>x</sub>) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO<sub>x</sub>, CO, and volatile organic compounds (VOC) into CO<sub>2</sub>, nitrogen, and water.

*Oil and gas production facility* as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

*Oxidation catalyst* means an add-on catalytic control device that controls CO and VOC by oxidation.

*Peaking unit or engine* means any standby engine intended for use during periods of high demand that are not emergencies.

*Percent load* means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the

potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

*Production field facility* means those oil and gas production facilities located prior to the point of custody transfer.

*Production well* means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

*Propane* means a colorless gas derived from petroleum and natural gas, with the molecular structure  $C_3H_8$ .

*Remote stationary RICE* means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

*Residential emergency stationary RICE* means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Rich burn engine* means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for  $NO_x$  (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

*Site-rated HP* means the maximum manufacturer's design capacity at engine site conditions.

*Spark ignition* means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary reciprocating internal combustion engine (RICE)* means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

*Stationary RICE test cell/stand* means an engine test cell/stand, as defined in subpart P of this part, that tests stationary RICE.

*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.

*Storage vessel with the potential for flash emissions* means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

*Subpart* means 40 CFR part 63, subpart ZZZZ.

*Surface site* means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

*Two-stroke engine* means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013]

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**Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>

<sup>1</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

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**Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F. <sup>1</sup>
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and not using NSCR.	Comply with any operating limitations approved by the Administrator.

<sup>1</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

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**Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O <sub>2</sub> . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O <sub>2</sub> until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or  b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O <sub>2</sub>	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or  b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

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**Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP**

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	Comply with any operating limitations approved by the Administrator.

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.



[78 FR 6707, Jan. 30, 2013]

[Back to Top](#)**Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O <sub>2</sub> .	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 4,320 hours of operation or annually,	

	whichever comes first, and replace as necessary. <sup>3</sup>	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O <sub>2</sub> .	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O <sub>2</sub> .	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O <sub>2</sub> .	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O <sub>2</sub> .	

<sup>1</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

<sup>2</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

<sup>3</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

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#### **Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>	<b>During periods of startup you must . . .</b>
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency,	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect spark plugs every 1,000	

non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. <sup>2</sup>	hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

<sup>1</sup> Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

<sup>2</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[78 FR 6709, Jan. 30, 2013]

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**Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests**

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. <sup>1</sup>
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. <sup>1</sup>
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. <sup>1</sup>
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

<sup>1</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6711, Jan. 30, 2013]

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**Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests**

As stated in §§63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O <sub>2</sub> measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) <sup>ac</sup> (heated probe not necessary)	(b) Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) <sup>abc</sup> (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4	(c) The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number/location of		(a) For formaldehyde, O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3

		traverse points at the inlet and outlet of the control device; and		traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) <sup>a</sup> (heated probe not necessary)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 <sup>a</sup>	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 <sup>a</sup> , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7	(a) THC concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) <sup>a</sup> (heated probe not necessary)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 <sup>a</sup>	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 <sup>a</sup> , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005) <sup>ac</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 <sup>a</sup>	(a) CO concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

<sup>a</sup>You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

<sup>b</sup>You may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[79 FR 11290, Feb. 27, 2014]

[Back to Top](#)**Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements**

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $\geq$ 250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $\geq$ 250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $\geq$ 250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O <sub>2</sub> or CO <sub>2</sub> at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O <sub>2</sub> or CO <sub>2</sub> at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O <sub>2</sub> ; ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O <sub>2</sub> , or the average reduction of emissions of THC is 30 percent or more; ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

[⬆ Back to Top](#)**Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements**

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved <sup>a</sup> ; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and

		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved <sup>9</sup> ; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent. <sup>9</sup>
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit <sup>9</sup> ; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating



		limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit <sup>4</sup> ; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain

		at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O <sub>2</sub> ; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O <sub>2</sub> , or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

<sup>a</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6715, Jan. 30, 2013]

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**Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports**

As stated in §63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in §63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in §63.6640(f)(4)(ii)	Report	a. The information in §63.6650(h)(1)	i. annually according to the requirements in §63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

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**Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.**

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes.	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	

§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	

§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

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## Appendix A to Subpart ZZZZ of Part 63—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

### 1.0 SCOPE AND APPLICATION. WHAT IS THIS PROTOCOL?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O<sub>2</sub>) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

#### 1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O<sub>2</sub>).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O <sub>2</sub> )	7782-44-7	

#### 1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

#### 1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

#### 1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O<sub>2</sub>, or no more than twice the permitted CO level.

#### 1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

## 2.0 SUMMARY OF PROTOCOL

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O<sub>2</sub> gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

## 3.0 DEFINITIONS

**3.1 Measurement System.** The total equipment required for the measurement of CO and O<sub>2</sub> concentrations. The measurement system consists of the following major subsystems:

**3.1.1 Data Recorder.** A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

**3.1.2 Electrochemical (EC) Cell.** A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

**3.1.3 Interference Gas Scrubber.** A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

**3.1.4 Moisture Removal System.** Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

**3.1.5 Sample Interface.** The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

**3.2 Nominal Range.** The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

**3.3 Calibration Gas.** A vendor certified concentration of a specific analyte in an appropriate balance gas.

**3.4 Zero Calibration Error.** The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

**3.5 Up-Scale Calibration Error.** The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

**3.6 Interference Check.** A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

**3.7 Repeatability Check.** A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

**3.8 Sample Flow Rate.** The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

**3.9 Sampling Run.** A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O<sub>2</sub> and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre-sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

**3.10 Sampling Day.** A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

**3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check.** The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

**3.12 Performance-Established Configuration.** The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

#### 4.0 INTERFERENCES.

When present in sufficient concentrations, NO and NO<sub>2</sub> are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

#### 5.0 SAFETY. [RESERVED]

#### 6.0 EQUIPMENT AND SUPPLIES.

##### 6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

##### 6.2 Measurement System Components.

**6.2.1 Sample Probe.** A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

**6.2.2 Sample Line.** Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

**6.2.3 Calibration Assembly (optional).** A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

**6.2.4 Particulate Filter (optional).** Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

**6.2.5 Sample Pump.** A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

**6.2.8 Sample Flow Rate Monitoring.** An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

**6.2.9 Sample Gas Manifold (optional).** A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

**6.2.10 EC cell.** A device containing one or more EC cells to determine the CO and O<sub>2</sub> concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

**6.2.11 Data Recorder.** A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O<sub>2</sub>; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

**6.2.12 Interference Gas Filter or Scrubber.** A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

#### 7.0 REAGENTS AND STANDARDS. WHAT CALIBRATION GASES ARE NEEDED?

**7.1 Calibration Gases.** CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O<sub>2</sub>. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O<sub>2</sub>) is acceptable for calibration of the O<sub>2</sub> cell. If needed, any lower percentage O<sub>2</sub> calibration gas must be a mixture of O<sub>2</sub> in nitrogen.

**7.1.1 Up-Scale CO Calibration Gas Concentration.** Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

**7.1.2 Up-Scale O<sub>2</sub> Calibration Gas Concentration.**

Select an O<sub>2</sub> gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O<sub>2</sub>. When the average exhaust gas O<sub>2</sub> readings are above 6 percent, you may use dry ambient air (20.9 percent O<sub>2</sub>) for the up-scale O<sub>2</sub> calibration gas.

**7.1.3 Zero Gas.** Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO<sub>2</sub>).

## 8.0 SAMPLE COLLECTION AND ANALYSIS

### 8.1 Selection of Sampling Sites.

**8.1.1 Control Device Inlet.** Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

**8.1.2 Exhaust Gas Outlet.** Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

**8.2 Stack Gas Collection and Analysis.** Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the "sample conditioning phase" once per minute until constant readings are obtained. Then begin the "measurement data phase" and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the "measurement data phase" readings to calculate the average stack gas CO and O<sub>2</sub> concentrations.

**8.3 EC Cell Rate.** Maintain the EC cell sample flow rate so that it does not vary by more than  $\pm 10$  percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than  $\pm 3$  percent, as instructed by the EC cell manufacturer.

## 9.0 QUALITY CONTROL (RESERVED)

## 10.0 CALIBRATION AND STANDARDIZATION

**10.1 Pre-Sampling Calibration.** Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

**10.1.1 Zero Calibration.** For both the O<sub>2</sub> and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

**10.1.2 Zero Calibration Tolerance.** For each zero gas introduction, the zero level output must be less than or equal to  $\pm 3$  percent of the up-scale gas value or  $\pm 1$  ppm, whichever is less restrictive, for the CO channel and less than or equal to  $\pm 0.3$  percent O<sub>2</sub> for the O<sub>2</sub> channel.

**10.1.3 Up-Scale Calibration.** Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes. Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component



gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

**10.1.4 Up-Scale Calibration Error.** The mean of the difference of the “measurement data phase” readings from the reported standard gas value must be less than or equal to  $\pm 5$  percent or  $\pm 1$  ppm for CO or  $\pm 0.5$  percent O<sub>2</sub>, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single “measurement data phase” reading must be less than or equal to  $\pm 2$  percent or  $\pm 1$  ppm for CO or  $\pm 0.5$  percent O<sub>2</sub>, whichever is less restrictive, respectively.

**10.2 Post-Sampling Calibration Check.** Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

## 11.0 ANALYTICAL PROCEDURE

The analytical procedure is fully discussed in Section 8.

## 12.0 CALCULATIONS AND DATA ANALYSIS

Determine the CO and O<sub>2</sub> concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the “measurement data phase”.

## 13.0 PROTOCOL PERFORMANCE

Use the following protocols to verify consistent analyzer performance during each field sampling day.

**13.1 Measurement Data Phase Performance Check.** Calculate the mean of the readings from the “measurement data phase”. The maximum allowable deviation from the mean for each of the individual readings is  $\pm 2$  percent, or  $\pm 1$  ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

*Example:* A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than  $\pm 2$  percent or  $\pm 1$  ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

**13.2 Interference Check.** Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO<sub>2</sub> gas standards that are generally recognized as representative of diesel-fueled engine NO and NO<sub>2</sub> emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

**13.2.1 Interference Response.** The combined NO and NO<sub>2</sub> interference response should be less than or equal to  $\pm 5$  percent of the up-scale CO calibration gas concentration.

**13.3 Repeatability Check.** Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

**13.3.1 Repeatability Check Procedure.** Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

**13.3.2 Repeatability Check Calculations.** Determine the highest and lowest average “measurement data phase” CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than  $\pm 3$  percent or  $\pm 1$  ppm of the up-scale gas value, whichever is less restrictive.

## 14.0 POLLUTION PREVENTION (RESERVED)

## 15.0 WASTE MANAGEMENT (RESERVED)

## 16.0 ALTERNATIVE PROCEDURES (RESERVED)

## 17.0 REFERENCES

Need assistance?

**CERTIFICATE OF SERVICE**

I, Pamela Owen, hereby certify that a copy of this permit has been mailed by first class mail to  
Cooper Tire & Rubber Company, 3500 Washington Road, Texarkana, AR, 71854, on this  
29<sup>th</sup> day of February, 2016.

Pamela Owen

Pamela Owen, ASIII, Air Division