

# ADEQ

A R K A N S A S  
Department of Environmental Quality

November 7, 2012

DeWayne Henry  
Environmental Coordinator  
Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB  
P.O. Box 1095  
Fordyce, AR 71742

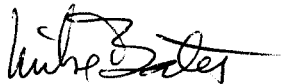
Dear Mr. Henry:

The enclosed Permit No. 1803-AOP-R10 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 4/9/2012.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 1803-AOP-R10 for the construction, operation and maintenance of an air pollution control system for Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB to 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,



Mike Bates  
Chief, Air Division

# ADEQ OPERATING AIR PERMIT

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

Permit No. : 1803-AOP-R10

IS ISSUED TO:

Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB  
#1 Georgia-Pacific Road  
Fordyce, AR 71742  
Calhoun County  
AFIN: 07-00212

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:

March 24, 2010 AND March 23, 2015

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

Signed:



Mike Bates  
Chief, Air Division

November 7, 2012

Date

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#### List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
BTU/hr	British Thermal Unit per hour
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
M	thousand
MM	million
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO <sub>x</sub>	Nitrogen Oxide
OSB	Oriented Strandboard
PCWP	Plywood and Composite Wood Panels
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Smaller Than Ten Microns
RCDME	Routine Control Device Maintenance Exemption
RICE	Reciprocating Internal Combustion Engine
RTO	Regenerative Thermal Oxidizer
SF	square feet
SNAP	Significant New Alternatives Program (SNAP)
SO <sub>2</sub>	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
TCO	Thermal Catalytic Oxidizer
tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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**SECTION I: FACILITY INFORMATION**

PERMITTEE: Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB

AFIN: 07-00212

PERMIT NUMBER: 1803-AOP-R10

FACILITY ADDRESS: #1 Georgia-Pacific Road  
Fordyce, AR 71742

MAILING ADDRESS: P.O. Box 1095  
Fordyce, AR 71742

COUNTY: Calhoun County

CONTACT NAME: DeWayne Henry

CONTACT POSITION: Environmental Coordinator

TELEPHONE NUMBER: 870-352-7252

REVIEWING ENGINEER: Melisha Griffin, PE

UTM North South (Y): Zone 15: 3736216.21 m

UTM East West (X): Zone 15: 558554.48 m

## SECTION II: INTRODUCTION

### Summary of Permit Activity

Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB operates a facility located at #1 Georgia-Pacific Road, Calhoun County, Fordyce, AR 71742. The purpose of this modification was to allow “a change in bark handling to ship bark off-site via truck rather than railcar”. The following changes were made to the operations:

1. Increase number of bark shipments by truck thus increasing actual emissions from the haul roads (SN-12)
2. Add a second bark storage pile which emissions will be accounted for under SN-13 (Outside Bark Storage Area), and
3. Update the bark handling system so that hogged bark is dropped into the storage pile located near the railcar loading area

The facility also requested to remove opacity limit from Outside Bark Storage Area (SN-13). After reviewing the request, the Department determined that based on the nature of the material in the storage pile the opacity limit at SN-13 was unnecessary.

The emissions associated with the two bark storage piles and increased truck traffic is 2.1 tpy of PM and 1.2 tpy of PM<sub>10</sub> combined. However, due to updated emissions methodologies, the proposed changes in the bark handling procedures will not result in an increase in PM and PM<sub>10</sub> emissions above currently permitted rates. The facility requested permitted emissions limits at SN-12 and SN-13 remain unchanged.

However the Department has corrected the PM<sub>10</sub> emission limit for SN-12 (Paved and Unpaved Roads). The PM<sub>10</sub> emission limit is stated as 24.9 tpy in Specific Condition 73 of permit#1803-AOP-R9 but 24.8 tpy in the Emissions Summary table. Therefore, the Emission Summary table was corrected to reflect the 24.9 tpy limit listed in Specific Condition 73.

### Process Description

Georgia-Pacific’s (G-P) Fordyce Oriented Strandboard (OSB) Plant currently has the capacity to produce 600 million square feet (MMSF), on a 3/8-inch basis, of OSB annually. This facility includes five dryers, a press, and associated materials handling equipment. Logs, resin, and wax are the primary raw materials used in OSB panel production. The production process is comprised of four principal manufacturing processes: (1) Furnish production, which includes debarking, slashing, and flaking; (2) Flake drying; (3) Forming and pressing; and (4) Finishing, which consists of sawing and sanding. The Fordyce OSB facility does not utilize any Continuous Emission Monitoring Systems (CEMS) for determining compliance with regulatory requirements.

#### Furnish Production

Logs are unloaded and temporarily stored in the log yard. The logs are then cut to size, debarked (SN-10), and processed into flakes. Bark from the debarkers and other green end material from

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the log yard is shipped off-site for use as wood fuel or for use in horticultural operations. Bark and green end material is stockpiled (SN-13) on site prior to shipment.

### **Flake Drying**

The drying process consists of five horizontal, cylindrical rotary drum-type flake dryers heated by suspension-type burners, and a pneumatic system which conveys the flakes through the dryers. The suspension burners are designed to burn ground wood fuel. Raw wood fuel is pneumatically transferred (SN-07) to the dry fuel bin, then ground in the hammermill (SN-09), and then stored in a metering bin. From the metering bin, the ground wood fuel is transferred and blown into the burner. Maximum heat input to each dryer is 40 million British thermal units per hour (MMBTU/hr). The wood fuel is introduced tangentially to the burners, creating a cyclonic flow pattern, thereby promoting combustion efficiency.

The hot exhaust from the burners combines with ambient air pulled through by the dryer's pneumatic system to dry the flakes. The amount of dilution air, and resulting gas temperature, are dependent on the dryer operating rate, wood moisture content, desired moisture content of the furnish, etc.

The dryers are also equipped with 40 MMBTU/hr natural gas-fired burners for back-up purposes. Air pollutant emissions associated with the drying operation include products of wood fuel combustion, such as PM, VOCs, CO, NO<sub>x</sub>, and sulfur dioxide (SO<sub>2</sub>). They also include additional PM, VOCs, CO, and formaldehyde, which are produced in the wood drying process. The dryers are controlled by two regenerative thermal oxidizers (RTO) (SN-01) that are preceded by multiclones.

One of the maintenances of RTOs is bakeout. The operation of a bakeout is to remove any accumulation of organic deposits within the ceramic media of the oxidizer. A bakeout operation holds the RTO chamber in outlet mode and raises the temperature of the bottom of the bed above 600 °F. The oxidizer must be off-line, and operating with fresh air flow only.

### **Forming and Pressing**

The dried wood flakes are blended with resin and wax, and are then placed as a mat on the forming line (SN-08) in layers, oriented at right angles, to provide structural integrity. The oriented material is then cut to size (SN-05), and the mat is moved into the thermal-oil-heated press, where it is compressed and heated to bond the resin to the flakes. The press emissions are controlled by a thermal catalytic oxidizer/regenerative thermal oxidizer (TCO/RTO) (SN-02). The TCO/RTO was originally constructed and installed as an RTO, but catalytic media has since been added above the ceramic media. The addition of the media allowed for operation of the unit in TCO or RTO mode. The TCO is not currently active. The thermal oil, that is used to heat the press, is heated to the appropriate temperature in a separate system, consisting of two, wood fuel, suspension-type burners, rated at 40 MMBTU/hr each. Two 30 MMBTU/hr natural gas-fired burners (SN-01A) are included in the thermal oil units as well for back-up purposes. While burning wood, the exhaust gases from the thermal oil system are routed through the dryer system and exit via the multiclones and RTOs. When the thermal oil system is not burning wood and is using the natural gas-fired burners in lieu of the wood fuel burners, emissions from the natural

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gas-fired burners can vent through the dryer system or to the atmosphere. Air pollutant emissions associated with the board press operation include PM, VOCs, CO, NO<sub>x</sub> and minor quantities of HAPs (e.g. formaldehyde, phenol, and methanol).

**Finishing**

The pressed mats are cut to size (SN-04), the edges are sprayed with sealant to prevent swelling (SN-11), and stencil, nail line, and/or logo may be applied to the product (SN-11). Some product is routed through a specialty saw (SN-06) and some product is routed through the overlay application process (SN-15). The finished OSB is then packed and stored inside (SN-14), and then shipped off-site. Dry end material (SN-03) is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations. There are times when a limited amount of this dry end material is stockpiled.

**Material Handling**

Numerous material handling operations, which represent both point sources and fugitive sources, are associated with the production of the OSB. Those operations that can be characterized as point sources include the screen fines with saw trim transfer pneumatics (SN-03), saw trim and finishing line pneumatics (SN-04), materials reject and flying saw pneumatics (SN-05), specialty saw and sander pneumatics (SN-06), fuel system pneumatics (SN-07), forming bin pneumatics (SN-08), and hammermill system pneumatics (SN-09). The pollutant emissions from these operations are limited to PM/PM<sub>10</sub>. Non-stack sources of air emissions include three debarkers and bark hog (SN-10), bark handling and storage (SN-13), resin storage and blending (SN-16), finishing coating (i.e., application of stencils, logos and edge-sealing) of finished boards on certain products (SN-11), finished product storage (SN-14), overlay application process on certain products (SN-15), and fugitive dust from paved and unpaved roads (SN-12). Volatile organic emissions release into the general plant environment and not directly vent to the atmosphere through a stack.

**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 July 9, 2012
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective July 9, 2012



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Regulations
40 CFR Part 63.2230, Subpart DDDD – <i>National Emissions Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products</i> (Appendix A)
40 CFR Part 63.6480, Subpart QQQQ – <i>National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products</i> (Appendix B)
40 CFR Part 63.6580, Subpart ZZZZ – <i>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines for SN-17<sup>1</sup> an existing Emergency stationary RICE located at a major source of HAPs</i> (Appendix C)

<sup>1</sup> SN-17 is not subject to NSPS Subpart IIII due to its' order date (1999), installation date in 2000 and the engine has not been modified or reconstructed since.

### 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	167.5	615.1
		PM <sub>10</sub>	131.6	528.0
		SO <sub>2</sub>	10.9	33.2
		VOC	242.8	1010.1
		CO	226	944.7
		NO <sub>x</sub>	143.9	423.8

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	HAPs	Acetaldehyde*	2.71	11.68
		Acrolein*	1.11	4.51
		Benzene*	0.14	0.43
		Cadmium	0.03	0.03
		Formaldehyde*	7.15	30.76
		Hexane*	0.96	3.76
		Methanol*	13.41	55.03
		Phenol*	2.96	10.54
		POM*	0.02	0.02
		Propionaldehyde*	0.20	0.60
		Vinyl Acetate*	1.24	5.43
		Combined HAPs***	1.30	4.00
	Air Contaminants **	Acetone**	2.20	8.50
		Ammonia**	1.30	4.00
01	Five Dryers (wood-fired, 40 MMBtu/hr each, emissions routed to multi-clones and split between RTO A and RTO B)	PM	94.1	412.2
		PM <sub>10</sub>	94.1	412.2
		SO <sub>2</sub>	7.3	32.0
		VOC	159.5	698.8
		CO	200.0	876.0
		NO <sub>x</sub>	73.3	321.1
		Acetaldehyde*	1.40	6.00
		Acrolein*	1.10	4.50
		Benzene*	0.10	0.40
		Cadmium	0.01	0.01
		Formaldehyde*	5.00	21.90
		Hexane*	0.80	3.00
		Methanol*	1.20	5.00
		Phenol*	2.22	7.30
		POM*	0.01	0.01
	Propionaldehyde*	0.20	0.60	
	Acetone**	1.70	7.00	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
01A	Two Thermal Oil Heaters (natural gas, 30 MMBTU/hr each)	PM	0.6	2.4
		PM <sub>10</sub>	0.6	2.4
		SO <sub>2</sub>	0.1	0.2
		VOC	0.4	1.7
		CO	6.0	26.0
		NO <sub>x</sub>	7.1	31.0
		Benzene*	0.01	0.01
		Cadmium	0.01	0.01
		Formaldehyde*	0.01	0.03
Hexane*	0.13	0.56		
02	OSB Press (Maximum Throughput of 77.2 MSF/hr)	PM	3.5	15.5
		PM <sub>10</sub>	3.5	15.5
		SO <sub>2</sub>	0.1	0.1
		VOC	25.3	110.7
		CO	9.2	40.0
		NO <sub>x</sub>	13.5	59.2
		Acetaldehyde*	0.06	0.24
		Benzene*	0.01	0.01
		Cadmium	0.01	0.01
		Formaldehyde*	1.00	4.40
		Hexane*	0.03	0.20
		Methanol*	5.14	22.50
		Phenol*	0.74	3.24
Acetone**	0.10	0.20		
03	Screen Fines/Saw Trim Transfer Pneumatics	PM	2.7	12.0
		PM <sub>10</sub>	2.7	12.0
		VOC	6.0	22.0
		Formaldehyde*	0.03	0.11
		Methanol*	0.14	0.54
		Acetone**	0.20	0.60
04	Saw Trim/Finishing Line Pneumatics	PM	2.2	9.3
		PM <sub>10</sub>	2.2	9.3
05	Mat Reject/Flying Saw Pneumatics	PM	3.8	16.3
		PM <sub>10</sub>	3.8	16.3

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
06	Specialty Saw/Sander Pneumatics	PM	1.3	5.7
		PM <sub>10</sub>	1.3	5.7
		VOC	12.0	44.0
		Methanol*	0.07	0.27
07	Fuel System Pneumatics	PM	0.5	1.9
		PM <sub>10</sub>	0.5	1.9
		VOC	12.0	44.0
		Methanol*	0.07	0.27
08	Forming Bins Pneumatics	PM	1.3	5.4
		PM <sub>10</sub>	1.3	5.4
09	Hammermill System Pneumatics	PM	2.7	11.6
		PM <sub>10</sub>	2.7	11.6
10	Debarker and Bark Hog	PM	4.0	16.0
		PM <sub>10</sub>	2.0	8.0
11	Stencil / Nail Line / Marking / Logo / Edge Seal Application	PM	0.2	0.5
		PM <sub>10</sub>	0.2	0.5
		VOC	5.7	17.4
		Combined HAPs***	1.30	4.00
		Ammonia**	1.30	4.00
12	Paved and Unpaved Roads (Unpaved roads limited to 2,400 hrs/yr)	PM	46.7	104.0
		PM <sub>10</sub>	12.8	24.9
13	Outside Bark Storage Area	PM	0.3	1.3
		PM <sub>10</sub>	0.3	1.3
14	Finished Product Storage	VOC	0.4	1.6
		Formaldehyde*	0.35	1.53
15	Overlay Application Process	VOC	2.5	10.9
		Acetaldehyde*	1.24	5.43
		Formaldehyde*	0.34	1.48
		Methanol*	0.79	3.45
		Vinyl Acetate*	1.24	5.43

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
16	Blender	VOC	15.0	58.0
		Formaldehyde*	0.40	1.30
		Methanol*	6.00	23.00
		Acetone**	0.20	0.70
17	Caterpillar Model 3508 Emergency Generator (diesel fuel, 1,341 hp, installed 2000)	PM	3.6	1.0
		PM <sub>10</sub>	3.6	1.0
		SO <sub>2</sub>	3.4	0.9
		VOC	4.0	1.0
		CO	10.8	2.7
		NO <sub>x</sub>	50.0	12.5
		Acetaldehyde*	0.01	0.01
		Acrolein*	0.01	0.01
		Benzene*	0.02	0.01
		Formaldehyde*	0.02	0.01
		POM*	0.01	0.01

\*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

\*\*Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

\*\*\*Total Combined HAP emissions from SN-11.

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### SECTION III: PERMIT HISTORY

Permit 1803-AOP-R0 was issued to Georgia Pacific Oriented Strandboard Facility on June 8, 1999. This was the initial Title V operating permit for this facility and allowed for construction to commence. This permit was PSD for PM/PM<sub>10</sub>, VOC, CO, and NO<sub>x</sub>.

Permit 1803-AOP-R1 was issued to Georgia Pacific Oriented Strandboard Facility on June 29, 2000. This modification to the initial permit corrected the fugitive emission calculations and updated PSD modeling because of a change in stack parameters. For the Dryer (SN-01), an RTO with multiclones was selected as BACT for PM, CO, and VOC emissions, and a low-NO<sub>x</sub> burner design was proposed for BACT for NO<sub>x</sub> emissions. For the Press (SN-02), RTO is selected as BACT for PM, CO, and VOC emissions and a low-NO<sub>x</sub> burner design are proposed for BACT for NO<sub>x</sub>. For the Material Handling Sources, a bagfilter-type dust collector is selected as BACT for PM.

Permit 1803-AOP-R2 was issued to Georgia Pacific Oriented Strandboard Facility on January 7, 2003. This modification made the following changes:

1. I increased the permitted capacity of the plant from 475 million square feet on a 3/8-inch basis of OSB to 600 million square feet of OSB on a 3/8-inch basis. This increase in throughput was a result of under-estimation of initial equipment capacity. No new equipment was added to achieve this increase.
2. Allowed for GP to convert the Press RTO (SN-02) to a thermal catalytic oxidizer (TCO) by adding catalytic media above the existing ceramic media. The facility will have the option of operation the oxidizer either as a TCO or RTO. There will be no change in emissions or BACT associated with this change.
3. I increased the CO emission rates on the Dryer (SN-01) to allow for a lower RTO set temperature. The Dryer RTO set temperatures changed from 1,630 to 1,550 degrees Fahrenheit in an effort to slow deterioration of the ceramic media. The RTO set temperature can be reset to a higher value provided that the facility demonstrates compliance with the applicable emission limits contained in this permit.
4. Updated AP -42 emission factors for Wood Combustion and OSB Manufacturing (Sections 1.6 and 10.6 respectively).
5. Allowed for visible emissions up to 20% opacity for SN-01 and SN-02 during the performance of off-line maintenance functions (i.e., the modified bakeout of the oxidizers.)

These changes increased CO emissions due to the change in RTO temperature. For the Dryers (SN-01), the RTO with multiclones (with a set point temperature of 1550 °F) was selected as BACT for PM, CO, and VOC emissions, and a low-NO<sub>x</sub> burner design, combined with fuel enhancement, was proposed for BACT for NO<sub>x</sub>. For the Press (SN-02), an RTO/TCO was selected as BACT for PM, CO, and VOC emissions, and a low-NO<sub>x</sub> burner design was proposed for BACT for NO<sub>x</sub> from the previous PSD permit. For the Material Handling Sources, a bagfilter-type dust collector was selected as BACT for PM.

Permit 1803-AOP-R3 was issued to Georgia Pacific Oriented Strandboard Facility on July 8, 2004. This renewal made the following changes:

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1. Reduced the required frequency of emissions testing for the Dryers and Press (SN-01 and SN-02) from once every year to once every five years based on past demonstrations of compliance;
2. Added the emissions associated with natural gas usage in the thermal oil system when the emissions are exhausted out of the bypass stacks (SN-01A);
3. Updated the HAP hourly and annual emission rates based on the most current AP-42 emission factors and stack testing results;
4. Added the CAM plan;
5. Increased opacity limits from 5% to 10%; and,
6. Increases in VOC emission limits shown between 1803-AOP-R2 and 1803-AOP-R3 were the result of changing emission factors. No physical process changes were made and no PSD review required.

Permit 1803-AOP-R3 was administratively amended on December 6, 2005. This amendment added the Specialty Saw/Sander Pneumatics to the Insignificant Activities list.

Permit 1803-AOP-R4 was issued on September 14, 2006. This minor modification allowed the facility to move the Overlay Project from the insignificant activities table into the Non-Stack Emissions Sources (SN-10). Increases from this modification were 0.8 tons per year of PM, 1.2 tons per year of VOC, 0.20 tons per year of acetaldehyde, 0.49 tons per year of formaldehyde, 0.10 tons per year of methanol, and 0.50 tons per year of vinyl acetate.

Permit 1803-AOP-R5 was issued on June 21, 2007. The modification included an increase of throughput on the Mat Reject/Flying Saw Pneumatics (SN-05) and the Overlay Project which was included in the Uncontrolled Emission Sources (SN-10), and updated the insignificant activities list. This modification also allowed the facility to reduce CO emissions from SN-01, and required annual CO testing of both RTOs at SN-01 as required by LIS 06-127. CO emissions decreased by 262.8 tpy in this permit modification.

Permit 1803-AOP-R6 was issued on December 12, 2008. The modification incorporated the provisions of 40 CFR Part 63, Subpart DDDD, *National Emissions Standards for Hazardous Air Pollutants: Plywood and Composite Wood Panels*, included an allowance for the Routine Control Device Maintenance for the Dryer RTOs and the Press RTO/TCO, and permitted the existing Stencil/Marking/Logo application (SN-11). Specific Conditions for SN-02 were also clarified as the facility was authorized to have the option of operating the oxidizer either as a TCO or RTO. CAM requirement has been removed as the sources subject to CAM are now subject to emission limitation in MACT. Specific conditions for SN-10 were also modified for the overlay application process to allow the flexibility to utilize alternative adhesives and increase the adhesive application hourly rate from 0.75 lb per 4' x 8' panel to 0.85 lb per 4' x 8' panel. Permitted emissions included: increase of PM/PM<sub>10</sub>, VOC, CO, acetaldehyde, formaldehyde, methanol, vinyl acetate, and total HAPs by 7.1 tpy, 23.5 tpy, 0.5 tpy, 1.71 tpy, 1.3 tpy, 1.3 tpy, 2.0 tpy, and 1.28 tpy respectively.

Permit #1803-AOP-R7 was issued a Title V permit renewal on March 24, 2010. In addition to revisions due to updated EPA AP-42 emission factors, this permit action included the following:

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1. Reassign the fugitive (non-stack) emission sources previously combined as SN-10 by redefining SN-10, adding SN-12 through SN-16, and distributing emissions accordingly;
2. Reassign blender fugitive emissions currently included with SN-08 and SN-10 to SN-16;
3. Increase the emission limits in association with the overlay application process (SN-15). The increase is related to an increase in the application rate of the adhesive from 0.85 lb/panel to 1.25 lb/panel;
4. Change SN-01 testing frequency of CO from annually to every five years to reflect the closed enforcement CAO (LIS# 06-127);
5. Incorporate revisions (including corrections) in annual emissions to the RCDME for SN-01 and SN-02, as provided in 40 CFR 63 - Subpart DDDD and included in Permit 1803-AOP-R6. (After Department review, it was determined the RCDME was not appropriate and the RCDME provision were removed);
6. Modify method for formaldehyde analysis (SN-01 and SN-02) during stack testing to allow flexibility to utilize other approved methods per 40 CFR 63, Subpart DDDD; and
7. Reassign the emergency generator (SN-17) as a permitted activity according to 40 CFR Part 63, Subpart ZZZZ, removing it from the insignificant activity list.

The permitted emission increases are: 2.4 tpy SO<sub>2</sub>, 58.1 tpy VOC, 14.5 tpy CO, 30.3 tpy NO<sub>x</sub>, 3.39 tpy Acetaldehyde, 4.51 tpy Acrolein, 0.43 tpy Benzene, 0.03 tpy Cadmium, 3.76 tpy Hexane, 6.88 tpy Methanol, 0.01 tpy POM, 0.60 tpy Propionaldehyde, 1.20 tpy Vinyl Acetate, and 8.50 tpy Acetone. The permitted emission decreases are: 40.4 tpy PM, 16.7 tpy PM<sub>10</sub>, and 0.15 tpy Formaldehyde.

Permit #1803-AOP-R8 was issued to Georgia-Pacific Wood Products, LLC Fordyce OSB on July 12, 2011. This permitting action increased the maximum operating speed of the Overlay Application Process (SN-15) from 80 to 120 feet per minute. The proposed higher line speed will be achieved by additional switches to monitor the in-feed parts (reducing “dead time”), adjusting the control settings of the variable-speed motors and adjusting the sheave ratio of the sprockets. Additionally, justifications of opacity observations are revised to cite the appropriate regulation. The total permitted annual emission rate changes associated with this modification included: 3.6 tpy VOC, 1.73 tpy acetaldehyde, 0.48 tpy formaldehyde, 1.05 tpy methanol and 1.73 tpy vinyl acetate.

Permit #1803-AOP-R9 was issued on March 23, 2012. The purpose of this modification was to:

1. Update the Press (SN-02) Hydraulic System with several improvements: an improved filtering unit for the hydraulic oil, a more sophisticated control system, a replacement PVL pump, “soft-start” components for the eight existing hydraulic pumps and an additional ninth “swing” pump. These multiple changes to the hydraulic system will increase the maximum hourly production rate from 76.8 to 77.2 MSF/hr (3/8” basis). There is no increase in pound/hour (lb/hr) or tons per year (tpy) emissions because of the 20% safety factor, Specific Conditions (SC) #18, #19, #20, #27 and #28;
2. Remove outdated language, i.e., “submit [to] . . . Compliance Section Manager” and replace with “. . . in accordance with Plantwide Condition (PWC) #3”, SC #9, #10, #11, #27 and #28;



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3. Clarify that stack test records are to be submitted in their entirety to the Department in accordance with General Provision (GP) #7 and maintained on-site in accordance with GP #6 but keep no less than the latest performance test of the unit for SN-01 and SN-02, SC #9, #10, #11, #27 and #28;
4. Minimum 3-hour block average firebox operating temperature established during the most recent performance tests for SN-01 as follows: RTO A – 1550 °F [March 2008] and RTO B – 1552 °F [March 2008], SC #12.a.ii. Subsequent performance test that demonstrates compliance with permit may change the minimum operating temperature;
5. Minimum 3-hour block average firebox operating temperature established during the most recent performance tests for SN-02 as follows: RTO mode 1498 °F [March 2008] and TCO mode 1250 °F [March 2004], SC #29.a.ii. Subsequent performance test that demonstrates compliance with permit may change the minimum operating temperature;
6. Add recordkeeping of HAPs used at SN-11 which must be below 2011 reportable Threshold Limit Values (TLVs) and below de minimis levels, SC #68;
7. Add ammonia content limit in the edge seal materials (SN-11) to a maximum allowable of one percent (1.0%) ammonia by weight, SC #71;
8. Updated *Paved Roads* PM/PM<sub>10</sub> emissions (SN-12) based on latest revisions to AP-42 Section 13.2.1 (01/2011), SC #73 and #74; and
9. Increase VOC and formaldehyde emissions in Product Storage Area (SN-14) by adding six new 40,000 acfm exhaust fans, SC #80 and #81.

The total permitted annual emission rate changes associated with this modification included: -108.0 tons per year (tpy) PM, -21.2 tpy PM<sub>10</sub>, 1.4 tpy VOC, 1.03 tpy formaldehyde, 0.0055 tpy POM and 4.00 tpy ammonia.

**SECTION IV: SPECIFIC CONDITIONS**

SN-01 Five Dryers  
 (Split between two RTOs)

Source Description

This source consists of five Flake Dryers. Each dryer is a horizontal, cylindrical rotary drum heated by suspension-type burners and a pneumatic system which conveys the flakes through the dryers. The burners consume ground wood fuel from the Hammermill. Each dryer has a maximum heat input of 40 million BTU per hour. BACT for this source has been determined to be a shared system of multi-clones followed by two parallel Regenerative Thermal Oxidizers (RTOs). These emissions are subject to the control requirements prescribed in 40 CFR Part 63, Subpart DDDD – *National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Panels (PCWP)*.

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 by complying with Specific Conditions #8 and #9, Plantwide Condition #8, and by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01	Five Dryers (wood-fired, 40 MMBtu/hr each, emissions routed to multi-clones and split between two RTOs)	PM <sub>10</sub>	94.1	412.2
		VOC	159.5	698.8
		CO	200.0	876.0
		NO <sub>x</sub>	73.3	321.1

2. 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 Plantwide Condition #8, and by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01	Five Dryers	SO <sub>2</sub>	7.3	32.0

3. 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 Conditions #8, #10 and #12, Plantwide Condition #8, and by operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Five Dryers (wood-fired, 40 MMBtu/hr each, emissions routed to multi-clones and two RTOs)	PM	94.1	412.2
		Acetaldehyde	1.40	6.00
		Acrolein	1.10	4.50
		Benzene	0.10	0.40
		Cadmium	0.01	0.01
		Formaldehyde	5.00	21.90
		Hexane	0.80	3.00
		Methanol	1.20	5.00
		Phenol	2.22	7.30
		POM	0.01	0.01
		Propionaldehyde	0.20	0.60
		Acetone	1.70	7.00

4. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. During off-line maintenance functions (i.e., the modified bakeout of the oxidizers) a 20% limit is specified.

SN	Limit	Regulatory Citation
01	10%	§18.501 and A.C.A.

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SN	Limit	Regulatory Citation
01 (During offline maintenance functions)	20%	§19.503 and A.C.A.

5. The permittee shall conduct weekly observations of the opacity from SN-01 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
  
6. The permittee shall conduct daily observations of the opacity from SN-01 during off-line maintenance functions and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 19 §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
  
7. The permittee shall maintain continuous records of the static pressure at the inlet of each SN-01 RTO ID fan for purposes of preventive maintenance. Readings shall be recorded hourly and averaged every 12 hours. These records shall be maintained onsite in accordance with General Provision #6, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. [Regulation 19 §19.705, §19.901 and 40 CFR Part 52, Subpart E]
  
8. The permittee shall maintain continuous records of when the isolation damper changes position between open and closed. These records shall be maintained onsite in accordance with General Provision #6, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. [Regulation 19 §19.705, §19.901 and 40 CFR Part 52, Subpart E]

9. The permittee shall test one RTO, either A or B, in SN-01 every five years for PM<sub>10</sub>, NO<sub>x</sub>, and VOC [THC (as carbon)] emissions using EPA Reference Methods 5 or 201, 7E, and 25A respectively, and for opacity using EPA Reference Method 9. These tests shall be performed simultaneously. While performing the tests, the five dryers shall be operating at least 90% of the maximum throughput rate. If testing is conducted at a rate lower than 90%, the facility shall be limited to an operating rate of 110% of the tested rate until compliance at a higher rate is demonstrated. Testing shall otherwise be performed in accordance with Plantwide Condition #3. Stack test records must be submitted in their entirety to the Department in accordance with General Provision #7 and maintained on-site in accordance with General Provision #6 but keep no less than the latest performance test of the unit. [Regulation 19 §19.702, §19.901 and 40 CFR Part 52, Subpart E]
10. The permittee shall test one RTO in SN-01 every five years for Formaldehyde emissions. The permittee shall use the Acetylacetone Method; or Method 316 in appendix A to 40 CFR Part 63; or Method 320 in appendix A to 40 CFR Part 63; or Method 0011 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication No. SW-846) for formaldehyde; or the NCASI Method CI/WP-98.01 (IBR, see §63.14(f)); or the NCASI Method IM/CAN/WP-99.02 (IBR, see §63.14(f)); or the NCASI Method ISS/FP-A105.01 (IBR, see §63.14(f)); or other test method upon the Department's approval. While performing the test, the five dryers shall be operating at least 90% of the maximum throughput rate. If testing is conducted at a rate lower than 90%, the facility shall be limited to an operating rate of 110% of the tested rate until compliance at a higher rate is demonstrated. Testing shall otherwise be performed in accordance with Plantwide Condition #3. Stack test records must be submitted in their entirety to the Department in accordance with General Provision #7 and maintained on-site in accordance with General Provision #6 but keep no less than the latest performance test of the unit. [Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
11. The permittee shall test both RTOs in SN-01 every five years for CO emissions using EPA Reference Method 10. While performing the test, the five dryers shall be operating at least 90% of the maximum throughput rate. If testing is conducted at a rate lower than 90%, the facility shall be limited to an operating rate of 110% of the tested rate until compliance at a higher rate is demonstrated. Testing shall otherwise be performed in accordance with Plantwide Condition #3. Stack test records must be submitted in their entirety to the Department in accordance with General Provision #7 and maintained on-site in accordance with General Provision #6 but keep no less than the latest performance test of the unit. [Regulation 19 §19.702, §19.901 and 40 CFR Part 52, Subpart E]
12. SN-01 is subject to and shall comply with applicable provisions of 40 CFR Part 63, Subpart DDDD – *National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Panels* (Appendix A). Applicable provisions of Subpart DDDD include the following: [Regulation 19 §19.304 and 40 CFR §63.2232]

a. The permittee must use an emissions control system and demonstrate that the resulting emissions meet the compliance options and operating requirements in Table 1B – *Add-on Control Systems Compliance Options* and Table 2 – *Operating Requirements* of 40 CFR Part 63 Subpart DDDD.

- i. The permittee must comply by using an emission control system (SN-01) to reduce emissions of total HAP, measured as THC (as carbon)<sup>1</sup>, by 90 percent or the permittee must comply by using an emission control system that meets one of the compliance options included in Table 1B of 40 CFR Part 63 Subpart DDDD;
- ii. The permittee shall maintain the 3-hour block average RTO A and RTO B firebox temperatures for SN-01 above the values established during the latest approved performance test as summarized in the following table, or above the minimum temperature established during any subsequent approved performance tests that demonstrates compliance with the permit; and

SN	RTO	Minimum Operating Temperature (@ 3-hour block average)	Latest Performance Test to-date with issue of Permit #1803-AOP-R9
01	A	1550 °F	March 11-14, 2008
	B	1552 °F	March 11-14, 2008

- iii. The permittee shall collect and record the RTO firebox temperature at least every 15 minutes and reduce the data to 3-hour block averages to demonstrate compliance with Specific Condition 12(a)(ii). These records shall be maintained onsite, updated daily, and made available to Department personnel upon request.
- b. The permittee must be in compliance with the compliance options, operating requirements, and the work practice requirements in this subpart at all times, except during periods of process unit or control device startup, shutdown, and malfunction; prior to process unit initial startup; and during the routine control device maintenance exemption (RCDME) specified in §63.2251. The compliance options, operating requirements, and work practice requirements do not apply during times when the process unit(s) subject to the compliance options, operating requirements, and work practice requirements are not operating, or during periods of startup, shutdown, and malfunction. Startup and shutdown periods must not exceed the minimum amount of time necessary for these events. [Regulation 19 §19.304 and 40 CFR §63.2250]
- c. The permittee shall submit Semi-Annual Compliance Reports as outlined in §63.1417(f) no later than 30 days after each 180-day period. The first report shall be due July 31, 2008. Each report shall cover the previous 180-day period with

<sup>1</sup> The permittee may choose to subtract methane from THC as carbon measurements. [Regulation 19 §19.304 and 40 CFR §63.2240(b), §63.2262, §63.2269, §63.2270, §63.2271, Table 1B, Table 2, and Table 7]

- exception of the initial report which shall cover the period between October 1, 2007 and June 30, 2008. The permittee shall report start-up, shutdown, and malfunction event handled consistent with the SSM Plan on the Semi-Annual Compliance Report. If applicable, reports of routine control device maintenance exemption activity shall be included with the Semi-Annual Compliance Report. [Regulation 19 §19.304 and 40 CFR §63.2281]
- d. The permittee shall submit reports of start-up, shutdown, and malfunction events inconsistent with SSM Plan. These events shall be reported on in an immediate SSM report. [§60.10(d)(5)(ii)]
  - e. If an affected source submits a compliance report pursuant to Table 9 – *Requirements for Reports* to 40 CFR Part 63 Subpart DDDD along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A), as required by General Provision 7, and the compliance report includes all required information concerning deviations from any compliance option, operating requirement, 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. [Regulation 19 §19.304 and 40 CFR §63.2281(g)]
  - f. The permittee shall keep records required by §63.2282 in compliance with §63.2283. [Regulation 19 §19.304 and 40 CFR §63.2281(g)]
  - g. The permittee must keep a copy of the SSM Plan at the source's location and retain all previous versions of the SSM Plan for five years. [Regulation 19 §19.304 and 40 CFR §63.6(e)(3)]

SN-01A Thermal Oil Heaters

Source Description

The Thermal Oil System provides heat to the Press Section (SN-02) where the flakes are compressed to form the board. The thermal oil system that is used to heat the press to the appropriate temperature consists of two wood-fueled, suspension type burners, rated at 40 MMBTU/hr each. Exhaust from these burners is routed through the Regenerative Thermal Oxidizer (RTO, SN-01) under normal operating conditions.

However, there are two 30 MMBTU/hr natural gas-fired burners (SN-01A) included in the thermal oil system for back-up purposes. These back-up burners would be used to keep the oil within the system warm when the plant is down or in the event the RTOs show signs of back-pressuring due to expected gradual media deterioration within the RTO. Emissions associated with the combustion of natural gas used to power the back-up burners are vented to the atmosphere when in use. Compliance will be shown by using only natural gas when venting directly to the atmosphere

Specific Conditions

13. 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 #16 and by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01A	Two Thermal Oil Heaters (natural gas burners, 30 MMBTU/hr each)	PM <sub>10</sub>	0.6	2.4
		SO <sub>2</sub>	0.1	0.2
		VOC	0.4	1.7
		CO	6.0	26.0
		NO <sub>x</sub>	7.1	31.0

14. 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 #16 and by operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]



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SN	Description	Pollutant	lb/hr	tpy
01A	Two Thermal Oil Heaters (natural gas burners, 30 MMBTU/hr each)	PM	0.6	2.4
		Benzene	0.01	0.01
		Cadmium	0.01	0.01
		Formaldehyde	0.01	0.03
		Hexane	0.13	0.56

15. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this condition is burning only natural gas whenever venting to the atmosphere.

SN	Limit	Regulatory Citation
01A	10%	§18.501 and A.C.A.

16. When venting to the atmosphere, only natural gas may be used as fuel in the Thermal Oil Heaters. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]
17. The permittee shall maintain records of when the Thermal Oil Heaters are vented to the atmosphere and when natural gas was the fuel burned. These records shall be maintained onsite in accordance with General Provision #6, updated monthly, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. [Regulation 19 §19.705, §19.901 and 40 CFR Part 52, Subpart E]

SN-02 OSB Press

Source Description

In the Press (SN-02), dried wood flakes are blended with resin and wax, and are then placed as a mat on the forming line in layers, oriented at right angles, to provide structural integrity. The mat is then moved into the thermal-oil-heated press, where it is compressed and heated to bond the resin to the flakes. The thermal oil is heated to the appropriate temperature in a separate system, consisting of two, wood fuel, suspension-type burners. The exhaust gases from the burners are routed through the dryer system. Air pollutant emissions associated with the board press operation include PM<sub>10</sub>, VOCs, CO, NO<sub>x</sub> and formaldehyde. BACT and MACT for SN-02 have been determined to be a shared system of multi-clones followed by a TCO?RTO (Thermal Catalytic Oxidizer/Regenerative Thermal Oxidizer). These emissions, PM<sub>10</sub>, VOCs, CO, NO<sub>x</sub> and formaldehyde, are subject to the control requirements prescribed in 40 CFR Part 63, Subpart DDDD, *National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Panels (PCWP)*.

Specific Conditions

18. 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 Conditions #26 and #27, Plantwide Condition #8, and by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
02	OSB Press (Maximum Throughput of 77.2 MSF/hr)	PM <sub>10</sub>	3.5	15.5
		VOC	25.3	110.7
		CO	9.2	40.0
		NO <sub>x</sub>	13.5	59.2

19. 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 Plantwide Condition #8 and by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
02	OSB Press (Maximum Throughput of 77.2 MSF/hr)	SO <sub>2</sub>	0.1	0.1

20. 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 Conditions #26, #27, #28 and #29, Plantwide Condition #8, and by operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
02	OSB Press (Maximum Throughput of 77.2 MSF/hr)	PM	3.5	15.5
		Acetaldehyde	0.06	0.24
		Benzene	0.01	0.01
		Cadmium	0.01	0.01
		Formaldehyde	1.00	4.40
		Hexane	0.03	0.20
		Methanol	5.14	22.50
		Phenol	0.74	3.24
		Acetone	0.10	0.20

21. 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
02	10%	§18.501 and A.C.A.

22. The permittee shall conduct weekly observations of the opacity from SN-02 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity

and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

23. Visible emissions may not exceed the limits specified in the following table of this permit during off-line maintenance functions (i.e., the modified bakeout of the oxidizers) as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
02 Off-line Maintenance Functions	20%	§19.503 and A.C.A.

24. The permittee shall conduct daily observations of the opacity from SN-02 during off-line maintenance functions and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 19 §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
25. The permittee shall maintain continuous records of the static pressure at the inlet of each SN-02 TCO/RTO ID fan for purposes of preventive maintenance. Readings shall be recorded hourly and averaged every 12 hours. These records shall be maintained onsite in accordance with General Provision #6, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. [Regulation 19 §19.705, §19.901 and 40 CFR Part 52, Subpart E]
26. The permittee shall maintain continuous records of when the SN-02 isolation damper changes position between open and closed. These records shall be maintained onsite in accordance with General Provision #6, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. [Regulation 19 §19.705, §19.901 and 40 CFR Part 52, Subpart E]
27. The permittee shall test SN-02 in RTO or TCO mode every five years for PM<sub>10</sub>, NO<sub>x</sub>, CO, and VOC emissions using EPA Reference Methods 5 or 201, 7E, 10, and 25A respectively, and for opacity using EPA Reference Method 9. At the time Permit #1803-AOP-R9 was issued, SN-02 TCO mode was deactivated. TCO mode was last operated in March 2008 and was last tested in March 2004. Upon installation of an active media

catalyst in SN-02, which would enable TCO mode, a TCO mode performance test must be performed in accordance with Plantwide Condition #3. The tests of the various pollutants and opacity shall be performed simultaneously. While performing the tests, the press (SN-02) shall be operating at least 90% of the maximum throughput rate of 77.2 thousand square feet (MSF) per hour with 3/8" product or equivalent as approved by the Department. If testing is conducted at a rate lower than 90%, the facility shall be limited to an operating rate of 110% of the tested rate until compliance at a higher rate is demonstrated. Testing shall otherwise be performed in accordance with Plantwide Condition #3. Stack test records must be submitted in their entirety to the Department in accordance with General Provision #7 and maintained on-site in accordance with General Provision #6 but keep no less than the latest performance test of the unit. [Regulation 19 §19.702, §19.901 and 40 CFR Part 52, Subpart E]

28. The permittee shall test SN-02 in RTO or TCO mode every five years for Formaldehyde emissions. At the time Permit #1803-AOP-R9 was issued, SN-02 TCO mode was deactivated. TCO mode was last operated in March 2008 and was last tested in March 2004. Upon installation of an active media catalyst in SN-02, which would enable TCO mode, a TCO mode performance test must be performed in accordance with Plantwide Condition #3. The permittee shall use the Acetylacetone Method; or Method 316 in appendix A to 40 CFR Part 63; or Method 320 in appendix A to 40 CFR Part 63; or Method 0011 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication No. SW-846) for formaldehyde; or the NCASI Method CI/WP-98.01 (IBR, see §63.14(f)); or the NCASI Method IM/CAN/WP-99.02 (IBR, see § 63.14(f)); or the NCASI Method ISS/FP-A105.01 (IBR, see §63.14(f)); or other test method upon the Department's approval. While performing the test, the press (SN-02) shall be operating at least 90% of the maximum throughput rate of 77.2 MSF/hr. If testing is conducted at a rate lower than 90%, the facility shall be limited to an operating rate of 110% of the tested rate until compliance at a higher rate is demonstrated. Testing shall otherwise be performed in accordance with Plantwide Condition #3. Stack test records must be submitted in their entirety to the Department and in accordance with General Provision #7 and maintained on-site in accordance with General Provision #6 but keep no less than the latest performance test of the unit. [Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
29. SN-02 is subject to and shall comply with applicable provisions of 40 CFR Part 63, Subpart DDDD – *National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Panels* (Appendix A). Applicable provisions of Subpart DDDD include the following: [Regulation 19 §19.304 and 40 CFR §63.2232]
- a. The permittee must use an emissions control system and demonstrate that the resulting emissions meet the compliance options and operating requirements in Table 1B – *Add-on Control Systems Compliance Options* and Table 2 – *Operating Requirements* of 40 CFR Part 63 Subpart DDDD.
  - i. The permittee must comply by using an emission control system (SN-02) to reduce emissions of total HAP, measured as THC (as carbon), by 90 percent or the permittee must comply by using an emission control system that meets

one of the compliance options included in Table 1B of 40 CFR Part 63 Subpart DDDD;

- ii. When operated as a TCO, the permittee shall maintain the 3-hour block average catalytic oxidizer temperature for SN-02 above the minimum temperature established during the latest approved performance test as summarized in the following table, or above the minimum temperature established during any subsequent approved performance tests that demonstrates compliance with the permit; and the permittee shall check the activity level of a representative sample of the catalyst at least every 12 months. When operated as an RTO, the permittee shall maintain the 3-hour block average RTO firebox temperature for SN-02 above the minimum temperature established during the latest approved performance test as summarized in the following table, or above the minimum temperature established during any subsequent approved performance tests that demonstrates compliance with the permit; and

SN	Mode	Minimum Operating Temperature (@ 3-hour block average)	Latest Performance Test to-date with issue of Permit #1803-AOP-R9
02	RTO	1498 °F	March 11-14, 2008
02	TCO	1250 °F	March 26, 2004

- ii. The permittee shall collect and record the temperature of SN-02 at least every 15 minutes with the mode used designated and reduce the data to 3-hour block averages to demonstrate compliance with Specific Condition #29(a)(ii). These records shall be maintained onsite, updated daily, and made available to Department personnel upon request.
- b. The permittee may choose to subtract methane from THC as carbon measurements. [Regulation 19 §19.304 and 40 CFR §63.2240(b), §63.2262, §63.2269, §63.2270, §63.2271, Table 1B, Table 2, and Table 7 - *Continuous Compliance With the Compliance Options and Operating Requirements* of 40 CFR Part 63 Subpart DDDD]
- c. The permittee must be in compliance with the compliance options, operating requirements, and the work practice requirements of 40 CFR Part 63 Subpart DDDD at all times, except during periods of process unit or control device startup, shutdown, and malfunction; prior to process unit initial startup; and during the routine control device maintenance exemption (RCDME) specified in §63.2251. The compliance options, operating requirements, and work practice requirements do not apply during times when the process unit(s) subject to the compliance options, operating requirements, and work practice requirements are not operating, or during periods of startup, shutdown, and malfunction. Startup

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- and shutdown periods must not exceed the minimum amount of time necessary for these events. [Regulation 19 §19.304 and 40 CFR §63.2250]
- d. The permittee shall submit Semi-Annual Compliance Reports as outlined in §63.1417(f) no later than 30 days after each 180-day period. The first report shall be due July 31, 2008. Each report shall cover the previous 180-day period with exception of the initial report which shall cover the period between October 1, 2007 and June 30, 2008. The permittee shall report start-up, shutdown, and malfunction event handled consistent with the SSM Plan on the Semi-Annual Compliance Report. If applicable, reports of routine control device maintenance exemption activity shall be included with the Semi-Annual Compliance Report. [Regulation 19 §19.304 and 40 CFR §63.2281]
  - e. The permittee shall submit reports of start-up, shutdown, and malfunction events inconsistent with SSM Plan. These events shall be reported on an immediate SSM report. [§60.10(d)(5)(ii)]
  - f. If an affected source submits a compliance report pursuant to Table 9 - *Requirements for Reports* of 40 CFR Part 63 Subpart DDDD along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A), as required by General Provision #7, and the compliance report includes all required information concerning deviations from any compliance option, operating requirement, or work practice requirement of 40 CFR Part 63 Subpart DDDD, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. [Regulation 19 §19.304 and 40 CFR §63.2281(g)]
  - g. The permittee shall keep records required by §63.2282 in compliance with §63.2283. [Regulation 19 §19.304 and 40 CFR §63.2281(g)]

SN-03 Screen Fines/Saw Trim Transfer Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Specific Conditions

30. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
03	Screen Fines/Saw Trim Transfer Pneumatics	PM <sub>10</sub>	2.7	12.0
		VOC	6.0	22.0

31. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
03	Screen Fines/Saw Trim Transfer Pneumatics	PM	2.7	12.0
		Formaldehyde	0.03	0.11
		Methanol	0.14	0.54
		Acetone	0.20	0.60

32. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.



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SN	Limit	Regulatory Citation
03	10%	§18.501 and A.C.A.

33. The permittee shall conduct weekly observations of the opacity from SN-03 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA- Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and 40 CFR Part 52, Subpart E]

SN-04 Saw Trim/Finishing Line Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

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 operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Saw Trim/Finishing Line Pneumatics	PM <sub>10</sub>	2.2	9.3

35. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
04	Saw Trim/Finishing Line Pneumatics	PM	2.2	9.3

36. 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
04	10%	§18.501 and A.C.A.

37. The permittee shall conduct weekly observations of the opacity from SN-04 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity

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following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-05 Mat Reject /Flying Saw Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Specific Conditions

38. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
05	Mat Reject/Flying Saw Pneumatics	PM <sub>10</sub>	3.8	16.3

39. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
05	Mat Reject/Flying Saw Pneumatics	PM	3.8	16.3

40. 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
05	10%	§18.501 and A.C.A.

41. The permittee shall conduct weekly observations of the opacity from SN-05 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the

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permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-06 Specialty Saw / Sander Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Specific Conditions

42. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
06	Specialty Saw/Sander Pneumatics	PM <sub>10</sub>	1.3	5.7
		VOC	12.0	44.0

43. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
06	Specialty Saw/Sander Pneumatics	PM	1.3	5.7
		Methanol	0.07	0.27

44. 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
06	10%	§18.501 and A.C.A.

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45. The permittee shall conduct weekly observations of the opacity from source SN-06 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-07 Fuel System Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Specific Conditions

46. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
07	Fuel System Pneumatics	PM <sub>10</sub>	0.5	1.9
		VOC	12.0	44.0

47. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
07	Fuel System Pneumatics	PM	0.5	1.9
		Methanol	0.07	0.27

48. 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
07	10%	§18.501 and A.C.A.



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49. The permittee shall conduct weekly observations of the opacity from source SN-07 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-08 Forming Bins Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Specific Conditions

50. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
08	Forming Bins Pneumatics	PM <sub>10</sub>	1.3	5.4

51. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
08	Forming Bins Pneumatics	PM	1.3	5.4

52. 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
08	10%	§18.501 and A.C.A.

53. The permittee shall conduct weekly observations of the opacity from source SN-08 and keep a record of these observations. Observations are to be made by person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity

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and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-09 Hammermill System Pneumatics

Source Description

The pressed mats are cut to size, cooled, and the edges are sprayed with sealant to prevent swelling. Dry end material is either burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Specific Conditions

54. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
09	Hammermill System Pneumatics	PM <sub>10</sub>	2.7	11.6

55. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below the maximum capacity of the equipment. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
09	Hammermill System Pneumatics	PM	2.7	11.6

56. 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
09	10%	§18.501 and A.C.A.

57. The permittee shall conduct weekly observations of the opacity from source SN-09 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The

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permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-10 Debarker and Bark Hog

Source Description

Debarker and Bark Hog are material handling operations responsible for non-stack emissions. Logs are unloaded and temporarily stored in the log yard. The logs are then cut to size, debarked (SN-10), and processed to flakes. Bark from the debarkers and other green end material from the log yard is shipped off-site for use as wood fuel or for use in horticultural operations. The maximum amount of logs to support the dryers (SN-01) is approximately 134.5 tons logs/hr Debarker and 13.45 tons bark/hr Bark Hog.

Specific Conditions

58. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
10	Debarker and Bark Hog	PM <sub>10</sub>	2.0	8.0

59. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
10	Debarker and Bark Hog	PM	4.0	16.0

60. 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
10	20%	§19.503 and A.C.A.

61. The permittee shall conduct weekly observations of the opacity from SN-10 and keep a record of these observations. Observations are to be made by a person trained, but not necessarily certified, as an EPA-Method 9 visible emissions opacity evaluator. 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 comply with the permitted opacity following the corrective action. The permittee shall maintain records

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of all observations, the cause of any visible emissions in excess of the permitted opacity and the corrective action taken. The permittee must maintain these records onsite in accordance with General Provision #6 and make them available to Department personnel upon request. [Regulation 19 §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-11 Stencil/Nail Line/Marking/Logo/Edge Seal Application

Source Description

Stencils, markings and logos may be applied to the board. Volatile organic emissions release into the general plant environment and do not directly vent to the atmosphere through a stack. These ink/paint applications are considered Group 1 miscellaneous coating operations under the Plywood and Composite Wood Panels (PCWP) MACT, 40 CFR 63 Subpart DDDD and are subject to applicable work practice requirements. *Group 1 miscellaneous coating operations* means application of edge seals, nail lines, logo (or other information) paint, shelving edge fillers, trademark/gradestamp inks, and wood putty patches to plywood and composite wood products (except kiln-dried lumber) on the same site where the plywood and composite wood products are manufactured. Group 1 miscellaneous coating operations also include application of synthetic patches to plywood at new affected sources. Miscellaneous coating operations that are not Group 1 miscellaneous coating operations may take place at the facility, but are not subject to the following work practice requirements or Specific Conditions.

Specific Conditions

62. 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 #65. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
11	Stencil/Nail Line/Marking/Logo/ Edge Seal Application	PM <sub>10</sub>	0.2	0.5
		VOC	5.7	17.4

63. 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 #64, #67 and #71. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
11	Stencil/Nail Line/Marking/Logo/ Edge Seal Application	PM	0.2	0.5
		Ammonia	1.30	4.00

64. The permittee shall not exceed the emission rates set forth in the following table. Compliance with these limits shall be demonstrated by compliance with Specific Conditions #67 and #71. The HAP emissions rates/limits specified in the following table



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are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
Combined HAPs	1.30	4.00

65. The permittee shall not emit more than 17.4 tons of VOC at SN-11 per rolling 12 month period. VOC content of the Paint/Ink used shall be no more than 0.31 lb VOC/gal. [Regulation 19 §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
66. The permittee shall calculate and maintain monthly records to demonstrate compliance with Specific Condition #65. The permittee shall maintain Material Safety Data Sheets (MSDS) or equivalent documentation on-site. The permittee shall update these calculations by the fifteenth day of the month following the month to which the records pertain. The permittee shall maintain a twelve month rolling total and each individual month's data in a spreadsheet, database, or other well-organized format, maintained on-site in accordance with General Provision #6 and made available to Department personnel upon request. [Regulation 19 §19.705 and 40 CFR Part 52, Subpart E]
67. The permittee shall use only non-HAP miscellaneous coatings (Group 1) at this source, SN-11. Non-HAP coating is defined as a coating with HAP contents less than 0.1 percent by mass for Occupational Safety and Health Administration-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and less than one percent (1.0%) by mass for other HAP compounds. Furthermore the HAPs used must be below reportable threshold levels and below de minimis levels, since no specific HAP is being permitted at this source. [Regulation 19 §19.304, Regulation 18 §18.1004 and 40 CFR §63.2241]
68. The permittee shall calculate and maintain records which demonstrate compliance with Specific Condition #67. The permittee shall maintain records on-site of the ACGIH TLV values as listed in the current MSDS forms or equivalent documentation or in the 2011 ACGIH handbook of Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) for each HAP-containing material at the facility. The concentration of each HAP in lb/gal as applied and the corresponding TLV should be noted in these records. The permittee shall update these calculations by the fifteenth day of the month following the month to which the records pertain. The permittee shall maintain a twelve month rolling total and each individual month's data in a spreadsheet, database, or other well-organized format, maintained on-site in accordance with General Provision #6 and made available to Department personnel upon request. [Regulation 18 §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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69. The permittee must meet the notification requirements according to the schedule in 40 CFR §63.2280 and according to 40 CFR Part 63, Subpart A. [Regulation 19 §19.304 and 40 CFR §63.2280]
70. The permittee shall report each deviation to the work practice requirement to use only non-HAP coatings as specified in Specific Condition #67. These deviations shall be reported in accordance with §63.2281. If there are no deviations from the non-HAP coating requirements, the permittee shall submit a statement that there were no deviations from the work practice requirements during the reporting period. [Regulation 19 §19.304 and 40 CFR §63.2271]
71. The permittee shall not use any material at SN-11 that contains ammonia content in excess of one percent (1.0%) by weight. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
72. The permittee shall calculate and maintain records to demonstrate compliance with the annual ammonia emissions limitation contained in Specific Conditions #63 and #71. The permittee shall maintain Material Safety Data Sheets (MSDS) or equivalent documentation on-site. These records shall indicate the amount of ammonia containing material used during each month and the ammonia content of each material. The permittee shall update these calculations by the fifteenth day of the month following the month to which the records pertain. The permittee shall maintain a twelve month rolling total and each individual month's data in a spreadsheet, database, or other well-organized format, maintain on-site in accordance with General Provision #6 and made available to Department personnel upon request. [Regulation 18 §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-12 Paved Roads and Unpaved Roads

Source Description

The Paved Roads and Unpaved Roads (SN-12) are material handling operations responsible for non-stack emissions.

Specific Conditions

73. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions #75 and #76. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
12	Paved Roads and Unpaved Roads	PM <sub>10</sub>	12.8	24.9

74. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions #75 and #76. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
12	Paved Roads and Unpaved Roads	PM	46.7	104.0

75. The permittee shall not operate in a manner such that fugitive emissions from the roads (SN-12) would cause a nuisance off-site or allow visible emissions from extending beyond the property boundary. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance provided that there are no complaints received by the Department regarding dust from the facility. The permittee shall use water sprays, sweeping, or other techniques as necessary to control fugitive emissions. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

76. Dust suppression activities should be conducted in a manner and at a rate of application that is consistent with the facility's general stormwater permit. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-13 Outside Bark Storage Areas

Source Description

The two Outside Bark Storage Areas (SN-13) are material handling operations responsible for non-stack emissions.

Specific Conditions

77. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8 and Specific Condition #79. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
13	Outside Bark Storage Area	PM <sub>10</sub>	0.3	1.3

78. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8 and Specific Condition #79. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
13	Outside Bark Storage Area	PM	0.3	1.3

79. The combined storage area for the two Outdoor Bark Storage Areas (SN-13) shall not exceed 0.65 acres. [Regulation 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
80. To demonstrate compliance with Specific Condition 79, the permittee shall measure and record the total area of both storage piles once per year. The data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7. [Regulation 19 §19.705 and 40 CFR Part 52, Subpart E]

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SN-14 Finished Product Storage

Source Description

The Finished Product Storage Area (SN-14) is a material handling operation responsible for non-stack emissions. Emission calculations from this area are based on the maximum exhaust air flow from seven fans. The fans are for employee comfort but exhaust VOC/formaldehyde non-point emissions emitted from stored OSB. There are no controls.

Specific Conditions

81. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
14	Finished Product Storage	VOC	0.4	1.6

82. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance of this permit. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
14	Finished Product Storage	Formaldehyde	0.35	1.53

SN-15 Overlay Application Process

Source Description

The overlay application process involved the application of a low VOC adhesive followed by a thin overlay material to the panel face of finished OSB panels. The overlay application process is responsible for non-stack emissions.

Specific Conditions

83. The permittee shall not exceed the emission rates set forth in the following table. SN-15 is permitted at maximum operating capacity and coating [adhesive] content limits. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Specific Conditions #84 and #85 and with Plantwide Condition #8. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
15	Overlay Application Process	VOC	2.5	10.9

84. The permittee shall not exceed the emission rates set forth in the following table. SN-15 is permitted at maximum operating capacity and emission limits and coating [adhesive] content limits. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Specific Conditions #84 and #85 and with Plantwide Condition #8. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
15	Overlay Application Process	Acetaldehyde	1.24	5.43
		Formaldehyde	0.34	1.48
		Methanol	0.79	3.45
		Vinyl Acetate	1.24	5.43

85. SN-15 is subject to and shall comply with applicable provisions of 40 CFR Part 63, Subpart QQQQ – *National Emission Standards for Hazardous Air Pollutants: Surface*

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*Coating of Wood Building Products* (Appendix B). Applicable provisions of Subpart QQQQ include the following: [Regulation 19 §19.304 and 40 CFR §63.4681]

- a. The permittee may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. The permittee must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limit in §63.4690 and must use no thinner or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §63.4692 and §63.4693, respectively. [40 CFR §63.4741]
- b. The permittee shall comply with the following emission limits that apply to the Overlay Application Process as required by 40 CFR §63.4690. The permittee must limit organic HAP emissions to the atmosphere to no more than the applicable emission limit(s) in the following table, determined according to the requirements in §63.4741, §63.4751, or §63.4761. [Regulation 18 §18.801 and 40 CFR Part 63 Subpart QQQQ Table 2]

If the affected source applies coating to products in the following subcategory:	Then, the organic HAP emission limit for the affected source, in grams HAP/liter solids (lb HAP/gal solids) <sup>1,2</sup> is
Exterior Siding and Primed Doorskins	7 (0.06)
Flooring	93 (0.78)
Interior Wall Paneling or Tileboard	183 (1.53)
Other Interior Panels	20 (0.17)
Doors, Windows, and Miscellaneous	231 (1.93)

<sup>1</sup>Determined as a rolling 12-month emission rate according to the requirements in §63.4741, §63.4751, or §63.4761, as applicable.

<sup>2</sup>If the affected source applies coatings to products in more than one of the subcategories listed in the table, then you must determine the applicable emission limit according to §63.4690(c).

- c. The permittee must maintain records as specified in §63.4730 and §63.4731. [40 CFR §63.4742 and 40 CFR §63.4752]

85. The permittee shall not exceed the following content limits of VOC and HAPs of adhesive material used in Overlay Application Process at SN-15. [Regulation 18

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§18.801, Regulation 19 §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	Content Limit (percent by weight)
VOC	0.22
Acetaldehyde	0.11
Formaldehyde	0.03
Methanol	0.07
Vinyl Acetate	0.11

86. The permittee shall maintain records which demonstrate compliance with Specific Conditions #84 and #85. These records shall clearly indicate the VOC and HAP contents of each adhesive material used at SN-15 and may take the form of MSDS or other similar documentation. The records shall be updated as necessary to reflect any changes in the adhesive materials used at this source. These records shall be maintained on-site in accordance with General Provision #6, maintained in a well-organized spreadsheet or format and made available to Department personnel upon request. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]



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SN-16 Blender

Source Description

The Blender (SN-16) mixes the resin and slack wax with dried flakes and is a material handling operation responsible for non-stack emissions.

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 demonstrating compliance with Plantwide Condition #8. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
16	Blender	VOC	15.0	58.0

88. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by demonstrating compliance with Plantwide Condition #8. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
16	Blender	Formaldehyde	0.40	1.30
		Methanol	6.00	23.00
		Acetone	0.20	0.70

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SN-17 Diesel Fired Emergency Generator

Source Description

The Emergency Generator (SN-17) is powered by a 1,341 HP diesel-fired stationary reciprocating internal combustion engine (RICE). The emergency generator is used to provide electrical power to certain process and emergency loads at the OSB Facility in the event of a power outage.

Specific Conditions

89. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour rates are based on maximum capacity and compliance with the ton per year limits will be demonstrated by compliance with Specific Conditions #92. [Regulation 19 §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
17	Caterpillar Model 3508 Emergency Generator (diesel fuel, 1,341 hp, installed 2000)	PM <sub>10</sub>	3.6	1.0
		SO <sub>2</sub>	3.4	0.9
		VOC	4.0	1.0
		CO	10.8	2.7
		NO <sub>x</sub>	50.0	12.5

90. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour rates are based on maximum capacity and compliance with the ton per year limits will be demonstrated by compliance with Specific Conditions #92 and #94 and by using only diesel fuel to fire the engines and operating at or below the maximum capacity of the equipment. The HAP emissions rates/limits specified in the following table are based on the most current and appropriate emission factors published at the time of issuance. Future changes or updates to the published factors that cause an increase in calculated emissions will not constitute a violation of the emission rates/limits established herein. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
17	Caterpillar Model 3508 Emergency Generator (diesel fuel, 1,341 hp, installed 2000)	PM	3.6	1.0
		Acetaldehyde	0.01	0.01
		Acrolein	0.01	0.01

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SN	Description	Pollutant	lb/hr	tpy
		Benzene	0.02	0.01
		Formaldehyde	0.02	0.01
		POM	0.01	0.01

91. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this specific condition shall be demonstrated through the use of diesel as the only fuel.

SN	Limit	Regulatory Citation
17	20%	§19.503 and A.C.A.

92. The permittee shall not exceed a usage of 500 operating hours of the Emergency Generator (SN-17) per rolling 12 month period. The generator shall have a non-resettable hour meter. [Regulation 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
93. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #92. These records shall be updated by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site in accordance with General Provision #6 and made available to Department personnel upon request. [Regulation 19 §19.705 and 40 CFR Part 52 Subpart E]
94. SN-17 is subject to 40 CFR Part 63, Subpart ZZZZ-*National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* (Appendix C) or 40 CFR Part 63, Subpart A *National Emission Standards for Hazardous Air Pollutants – General Provisions*. This engine is classified as an existing emergency stationary RICE, however, and as such, is exempt from meeting the requirements of 40 CFR Part 63 Subpart ZZZZ. [Regulation 19 §19.304 and 40 CFR Part 63, §63.6590(b)(3)]

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#### **SECTION V: COMPLIANCE PLAN AND SCHEDULE**

Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB 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. [Regulation 19 §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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. [Regulation 19 §19.410(B) and 40 CFR Part 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 startup 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. [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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.

[Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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. [Regulation 19 §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
7. The permittee must prepare and implement a Startup, Shutdown, and Malfunction Plan (SSM). If the Department requests a review of the SSM, the permittee will make the SSM available for review. The permittee must keep a copy of the SSM at the source's

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location and retain all previous versions of the SSM plan for five years. [Regulation 19 §19.304 and 40 CFR 63.6(e)(3)]

8. The permittee shall not exceed a throughput of 600 million square feet (MSF) of OSB, on a 3/8-inch basis, at the facility per rolling twelve month period. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]
9. The permittee shall maintain monthly records which demonstrate compliance with the throughput limit set in Plantwide Condition #8. These records may be used by the Department for enforcement purposes. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site in accordance with General Provision #6, made available to Department personnel upon request and submitted in accordance with General Provision #7. [Regulation 19 §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

#### Title VI Provisions

10. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 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.
11. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 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)

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- 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.
12. 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 CFR Part 82, Subpart A, Production and Consumption Controls.
  13. 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 requirements as specified in 40 CFR part 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.

14. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G.

**Permit Shield**

15. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in the following table of this condition. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated February 18, 2011.

**Applicable Regulations**

<b>Source No.</b>	<b>Regulation</b>	<b>Description</b>
Facility	Regulation 19	Regulations of the Arkansas Plan of Implementation for Air Pollution Control
Facility	Regulation 26	Regulations of the Arkansas Operations Air Permit Program

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Source No.	Regulation	Description
01, 02, and 11	40 CFR Part 63, Subpart DDDD	National Emissions Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products
15	40 CFR Part 63, Subpart QQQQ	National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products
17	40 CFR Part 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated February 18, 2011.

Inapplicable Regulations

Source No.	Regulation	Description
01	40 CFR Part 60, Subpart Db	In a memorandum dated November 19, 1992, the US EPA concluded that NSPS Subparts Db and Dc do not apply to process dryers.
01	40 CFR Part 60, Subpart Dc	In a memorandum dated November 19, 1992, the US EPA concluded that NSPS Subparts Db and Dc do not apply to process dryers.



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### 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 §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated February 5, 2009 and February 18, 2011.

Description	Category
Portable Heaters	A-1
Coolant Tank	A-2
Used Oil Tank	A-2
Diesel Fueling Tank	A-3
Emergency Generator Diesel Tank	A-3
Fire Pump Diesel Tank	A-3
Kerosene Tank	A-3
Thermal Oil Tank	A-3
Maintenance Welding and Cutting	A-7
Gasoline Fueling Tank	A-13
Emergency Fire Pump	A-13

### 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 (A.C.A. §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 (A.C.A. §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 (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 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 CFR 70.6(a)(2) and Regulation 26 §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. [Regulation 26 §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 CFR 70.6(a)(1)(ii) and Regulation 26 §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 CFR 70.6(a)(3)(ii)(A) and Regulation 26 §26.701(C)(2)]

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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 CFR 70.6(a)(3)(ii)(B) and Regulation 26 §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. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §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 CFR 70.6(a)(3)(iii)(A) and Regulation 26 §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 Regulation 19, § 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 average 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.

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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.

[Regulation 19 §19.601 and §19.602, Regulation 26 §26.701(C)(3)(b), and 40 CFR 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 CFR 70.6(a)(5), Regulation 26 §26.701(E), and A.C.A. §8-4-203 as referenced by §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 CFR 70.6(a)(6)(i) and Regulation 26 §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 CFR 70.6(a)(6)(ii) and Regulation 26 §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 CFR 70.6(a)(6)(iii) and Regulation 26 §26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26 §26.701(F)(4)]

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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 CFR 70.6(a)(6)(v) and Regulation 26 §26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26 §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 CFR 70.6(a)(8) and Regulation 26 §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 CFR 70.6(a)(9)(i) and Regulation 26 §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 CFR 70.6(b) and Regulation 26 §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 Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26 §26.703(A)]
20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26 §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

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- 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 CFR 70.6(c)(5) and Regulation 26 §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: [Regulation 26 §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. [A.C.A. §8-4-203 as referenced by §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

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- c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Regulation 18 §18.314(A), Regulation 19 §19.416(A), Regulation 26 §26.1013(A), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 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.

[Regulation 18 §18.314(B), Regulation 19 §19.416(B), Regulation 26 §26.1013(B), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 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.

[Regulation 18 §18.314(C), Regulation 19 §19.416(C), Regulation 26 §26.1013(C), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

**Title 40: Protection of Environment****PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)**

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**Subpart DDDD—National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products****What This Subpart Covers**

**Source:** 69 FR 46011, July 30, 2004, unless otherwise noted.

**§ 63.2230 What is the purpose of this subpart?**

This subpart establishes national compliance options, operating requirements, and work practice requirements for hazardous air pollutants (HAP) emitted from plywood and composite wood products (PCWP) manufacturing facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the compliance options, operating requirements, and work practice requirements.

**§ 63.2231 Does this subpart apply to me?**

This subpart applies to you if you meet the criteria in paragraphs (a) and (b) of this section.

(a) You own or operate a PCWP manufacturing facility. A PCWP manufacturing facility is a facility that manufactures plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber, generally with resin under heat and pressure, to form a structural panel or engineered wood product. Plywood and composite wood products manufacturing facilities also include facilities that manufacture dry veneer and lumber kilns located at any facility. Plywood and composite wood products include, but are not limited to, plywood, veneer, particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, kiln-dried lumber, and glue-laminated beams.

(b) The PCWP manufacturing facility is located at a major source of HAP emissions. 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 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.

[69 FR 46011, July 30, 2004, as amended at 72 FR 61062, Oct. 29, 2007]

**§ 63.2232 What parts of my plant does this subpart cover?**

(a) This subpart applies to each new, reconstructed, or existing affected source at a PCWP manufacturing facility.

(b) The affected source is the collection of dryers, refiners, blenders, formers, presses, board coolers, and other process units associated with the manufacturing of plywood and composite wood products. The affected source includes, but is not limited to, green end operations, refining, drying operations (including any combustion unit exhaust stream routinely used to direct fire process unit(s)), resin preparation, blending and forming operations, pressing and board cooling operations, and miscellaneous finishing operations (such as sanding, sawing, patching, edge sealing, and other finishing operations not subject to other national emission standards for hazardous air pollutants (NESHAP)). The affected source also includes onsite storage and preparation of raw materials used in the manufacture of plywood and/or composite wood products, such as resins; onsite wastewater treatment operations specifically associated with plywood and composite wood products manufacturing; and miscellaneous coating operations (§63.2292). The affected source includes lumber kilns at PCWP manufacturing facilities and at any other kind of facility.

(c) An affected source is a new affected source if you commenced construction of the affected source after January 9, 2003, and you meet the applicability criteria at the time you commenced construction.



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

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

[69 FR 46011, July 30, 2004, as amended at 71 FR 8371, Feb. 16, 2006]

### **§ 63.2233 When do I have to comply with this subpart?**

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraph (a)(1) or (2) of this section, whichever is applicable.

(1) If the initial startup of your affected source is before September 28, 2004, then you must comply with the compliance options, operating requirements, and work practice requirements for new and reconstructed sources in this subpart no later than September 28, 2004.

(2) If the initial startup of your affected source is after September 28, 2004, then you must comply with the compliance options, operating requirements, and work practice requirements for new and reconstructed sources in this subpart upon initial startup of your affected source.

(b) If you have an existing affected source, you must comply with the compliance options, operating requirements, and work practice requirements for existing sources no later than October 1, 2007.

(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, you must be in compliance with this subpart by October 1, 2007 or upon initial startup of your affected source as a major source, whichever is later.

(d) You must meet the notification requirements according to the schedule in §63.220 and according to 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the compliance options, operating requirements, and work practice requirements in this subpart.

[69 FR 46011, July 30, 2004, as amended at 71 FR 8372, Feb. 16, 2006; 72 FR 61062, Oct. 29, 2007]

### **Compliance Options, Operating Requirements, and Work Practice Requirements**

#### **§ 63.2240 What are the compliance options and operating requirements and how must I meet them?**

You must meet the compliance options and operating requirements described in Tables 1A, 1B, and 2 to this subpart and in paragraph (c) of this section by using one or more of the compliance options listed in paragraphs (a), (b), and (c) of this section. The process units subject to the compliance options are listed in Tables 1A and 1B to this subpart and are defined in §63.2292. You need only to meet one of the compliance options outlined in paragraphs (a) through (c) of this section for each process unit. You cannot combine compliance options in paragraph (a), (b), or (c) for a single process unit. (For example, you cannot use a production-based compliance option in paragraph (a) for one vent of a veneer dryer and an add-on control system compliance option in paragraph (b) for another vent on the same veneer dryer. You must use either the production-based compliance option or an add-on control system compliance option for the entire dryer.)

(a) *Production-based compliance options.* You must meet the production-based total HAP compliance options in Table 1A to this subpart and the applicable operating requirements in Table 2 to this subpart. You may not use an add-on control system or wet control device to meet the production-based compliance options.

(b) *Compliance options for add-on control systems.* You must use an emissions control system and demonstrate that the resulting emissions meet the compliance options and operating requirements in Tables 1B and 2 to this subpart. If you own or operate a reconstituted wood product press at a new or existing affected source or a reconstituted wood product board cooler at a new affected source, and you choose to comply with one of the concentration-based compliance options for a control system outlet (presented as option numbers 2, 4, and 6 in Table 1B to this subpart), you must have a capture device that either meets the definition of wood products enclosure in §63.2292 or achieves a capture efficiency of greater than or equal to 95 percent.

(c) *Emissions averaging compliance option (for existing sources only)*. Using the procedures in paragraphs (c)(1) through (3) of this section, you must demonstrate that emissions included in the emissions average meet the compliance options and operating requirements. New sources may not use emissions averaging to comply with this subpart.

(1) *Calculation of required and actual mass removal*. Limit emissions of total HAP, as defined in §63.2292, to include acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde from your affected source to the standard specified by Equations 1, 2, and 3 of this section.

$$RMR = 0.90 \times \left( \sum_{i=1}^n UCEP_i \times OH_i \right) \quad (Eq. 1)$$

$$AMR = \left( \sum_{i=1}^n CD_i \times OCEP_i \times OH_i \right) \quad (Eq. 2)$$

$$AMR \geq RMR \quad (Eq. 3)$$

Where:

RMR = required mass removal of total HAP from all process units generating debits ( *i.e.*, all process units that are subject to the compliance options in Tables 1A and 1B to this subpart and that are either uncontrolled or under-controlled), pounds per semiannual period;

AMR = actual mass removal of total HAP from all process units generating credits ( *i.e.*, all process units that are controlled as part of the Emissions Averaging Plan including credits from debit-generating process units that are under-controlled), pounds per semiannual period;

$UCEP_i$  = mass of total HAP from an uncontrolled or under-controlled process unit (i) that generates debits, pounds per hour;

$OH_i$  = number of hours a process unit (i) is operated during the semiannual period, hours per 6-month period;

$CD_i$  = control system efficiency for the emission point (i) for total HAP, expressed as a fraction, and not to exceed 90 percent, unitless (Note: To calculate the control system efficiency of biological treatment units that do not meet the definition of biofilter in §63.2292, you must use 40 CFR part 63, appendix C, Determination of the Fraction Biodegraded ( $F_{bio}$ ) in a Biological Treatment Unit.);

$OCEP_i$  = mass of total HAP from a process unit (i) that generates credits (including credits from debit-generating process units that are under-controlled), pounds per hour;

0.90 = required control system efficiency of 90 percent multiplied, unitless.

(2) *Requirements for debits and credits*. You must calculate debits and credits as specified in paragraphs (c)(2)(i) through (v) of this section.

(i) You must limit process units in the emissions average to those process units located at the existing affected source as defined in §63.2292.

(ii) You cannot use nonoperating process units to generate emissions averaging credits. You cannot use process units that are shut down to generate emissions averaging debits or credits.

(iii) You may not include in your emissions average process units controlled to comply with a State, Tribal, or Federal rule other than this subpart.

(iv) You must use actual measurements of total HAP emissions from process units to calculate your required mass removal (RMR) and actual mass removal (AMR). The total HAP measurements must be obtained according to §63.2262(b) through (d), (g), and (h), using the methods specified in Table 4 to this subpart.

(v) Your initial demonstration that the credit-generating process units will be capable of generating enough credits to offset the debits from the debit-generating process units must be made under representative operating conditions. After the compliance date, you must use actual operating data for all debit and credit calculations.

(vi) Do not include emissions from the following time periods in your emissions averaging calculations:

(A) Emissions during periods of startup, shutdown, and malfunction as described in the startup, shutdown, and malfunction plan (SSMP).

(B) Emissions during periods of monitoring malfunctions, associated repairs, and required quality assurance or control activities or during periods of control device maintenance covered in your routine control device maintenance exemption. No credits may be assigned to credit-generating process units, and maximum debits must be assigned to debit-generating process units during these periods.

(3) *Operating requirements.* You must meet the operating requirements in Table 2 to this subpart for each process unit or control device used in calculation of emissions averaging credits.

#### **§ 63.2241 What are the work practice requirements and how must I meet them?**

(a) You must meet each work practice requirement in Table 3 to this subpart that applies to you.

(b) As provided in §63.6(g), we, the EPA, may choose to grant you permission to use an alternative to the work practice requirements in this section.

(c) If you have a dry rotary dryer, you may choose to designate your dry rotary dryer as a green rotary dryer and meet the more stringent compliance options and operating requirements in §63.2240 for green rotary dryers instead of the work practices for dry rotary dryers. If you have a hardwood veneer dryer or veneer redryer, you may choose to designate your hardwood veneer dryer or veneer redryer as a softwood veneer dryer and meet the more stringent compliance options and operating requirements in §63.2240 for softwood veneer dryer heated zones instead of the work practices for hardwood veneer dryers or veneer redryers.

#### **General Compliance Requirements**

#### **§ 63.2250 What are the general requirements?**

(a) You must be in compliance with the compliance options, operating requirements, and the work practice requirements in this subpart at all times, except during periods of process unit or control device startup, shutdown, and malfunction; prior to process unit initial startup; and during the routine control device maintenance exemption specified in §63.2251. The compliance options, operating requirements, and work practice requirements do not apply during times when the process unit(s) subject to the compliance options, operating requirements, and work practice requirements are not operating, or during periods of startup, shutdown, and malfunction. Startup and shutdown periods must not exceed the minimum amount of time necessary for these events.

(b) 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) You must develop a written SSMP according to the provisions in §63.6(e)(3).

(d) Shutoff of direct-fired burners resulting from partial and full production stoppages of direct-fired softwood veneer dryers or over-temperature events shall be deemed shutdowns and not malfunctions. Lighting or re-lighting any one or all gas burners in direct-fired softwood veneer dryers shall be deemed startups and not malfunctions.

**§ 63.2251 What are the requirements for the routine control device maintenance exemption?**

(a) You may request a routine control device maintenance exemption from the EPA Administrator for routine maintenance events such as control device bakeouts, washouts, media replacement, and replacement of corroded parts. Your request must justify the need for the routine maintenance on the control device and the time required to accomplish the maintenance activities, describe the maintenance activities and the frequency of the maintenance activities, explain why the maintenance cannot be accomplished during process shutdowns, describe how you plan to make reasonable efforts to minimize emissions during the maintenance, and provide any other documentation required by the EPA Administrator.

(b) The routine control device maintenance exemption must not exceed the percentages of process unit operating uptime in paragraphs (b)(1) and (2) of this section.

(1) If the control device is used to control a green rotary dryer, tube dryer, rotary strand dryer, or pressurized refiner, then the routine control device maintenance exemption must not exceed 3 percent of annual operating uptime for each process unit controlled.

(2) If the control device is used to control a softwood veneer dryer, reconstituted wood product press, reconstituted wood product board cooler, hardboard oven, press predryer, conveyor strand dryer, or fiberboard mat dryer, then the routine control device maintenance exemption must not exceed 0.5 percent of annual operating uptime for each process unit controlled.

(3) If the control device is used to control a combination of equipment listed in both paragraphs (b)(1) and (2) of this section, such as a tube dryer and a reconstituted wood product press, then the routine control device maintenance exemption must not exceed 3 percent of annual operating uptime for each process unit controlled.

(c) The request for the routine control device maintenance exemption, if approved by the EPA Administrator, must be IBR in and attached to the affected source's title V permit.

(d) The compliance options and operating requirements do not apply during times when control device maintenance covered under your approved routine control device maintenance exemption is performed. You must minimize emissions to the greatest extent possible during these routine control device maintenance periods.

(e) To the extent practical, startup and shutdown of emission control systems must be scheduled during times when process equipment is also shut down.

**§ 63.2252 What are the requirements for process units that have no control or work practice requirements?**

For process units not subject to the compliance options or work practice requirements specified in §63.2240 (including, but not limited to, lumber kilns), you are not required to comply with the compliance options, work practice requirements, performance testing, monitoring, SSM plans, and recordkeeping or reporting requirements of this subpart, or any other requirements in subpart A of this part, except for the initial notification requirements in §63.9(b).

[71 FR 8372, Feb. 16, 2006]

**Initial Compliance Requirements****§ 63.2260 How do I demonstrate initial compliance with the compliance options, operating requirements, and work practice requirements?**

(a) To demonstrate initial compliance with the compliance options and operating requirements, you must conduct performance tests and establish each site-specific operating requirement in Table 2 to this subpart according to the requirements in §63.2262 and Table 4 to this subpart. Combustion units that accept process exhausts into the flame zone are exempt from the initial performance testing and operating requirements for thermal oxidizers.

(b) You must demonstrate initial compliance with each compliance option, operating requirement, and

work practice requirement that applies to you according to Tables 5 and 6 to this subpart and according to §§63.2260 through 63.2269 of this subpart.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.2280(d).

### **§ 63.2261 By what date must I conduct performance tests or other initial compliance demonstrations?**

(a) You must conduct performance tests upon initial startup or no later than 180 calendar days after the compliance date that is specified for your source in §63.2233 and according to §63.7(a)(2), whichever is later.

(b) You must conduct initial compliance demonstrations that do not require performance tests upon initial startup or no later than 30 calendar days after the compliance date that is specified for your source in §63.2233, whichever is later.

### **§ 63.2262 How do I conduct performance tests and establish operating requirements?**

(a) You must conduct each performance test according to the requirements in §63.7(e)(1), the requirements in paragraphs (b) through (o) of this section, and according to the methods specified in Table 4 to this subpart.

(b) *Periods when performance tests must be conducted.* (1) You must not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(2) You must test under representative operating conditions as defined in §63.2292. You must describe representative operating conditions in your performance test report for the process and control systems and explain why they are representative.

(c) *Number of test runs.* 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 except for: testing of a temporary total enclosure (TTE) conducted using Methods 204A through 204F of 40 CFR part 51, appendix M, which require three separate test runs of at least 3 hours each; and testing of an enclosure conducted using the alternative tracer gas method in appendix A to this subpart, which requires a minimum of three separate runs of at least 20 minutes each.

(d) *Location of sampling sites.* (1) Sampling sites must be located at the inlet (if emission reduction testing or documentation of inlet methanol or formaldehyde concentration is required) and outlet of the control device (defined in §63.2292) and prior to any releases to the atmosphere. For control sequences with wet control devices (defined in §63.2292) followed by control devices (defined in §63.2292), sampling sites may be located at the inlet and outlet of the control sequence and prior to any releases to the atmosphere.

(2) Sampling sites for process units meeting compliance options without a control device must be located prior to any releases to the atmosphere. Facilities demonstrating compliance with a production-based compliance option for a process unit equipped with a wet control device must locate sampling sites prior to the wet control device.

(e) *Collection of monitoring data.* You must collect operating parameter monitoring system or continuous emissions monitoring system (CEMS) data at least every 15 minutes during the entire performance test and determine the parameter or concentration value for the operating requirement during the performance test using the methods specified in paragraphs (k) through (o) of this section.

(f) *Collection of production data.* To comply with any of the production-based compliance options, you must measure and record the process unit throughput during each performance test.

(g) *Nondetect data.* (1) Except as specified in paragraph (g)(2) of this section, all nondetect data (§63.2292) must be treated as one-half of the method detection limit when determining total HAP, formaldehyde, methanol, or total hydrocarbon (THC) emission rates.

(2) When showing compliance with the production-based compliance options in Table 1A to this subpart, you may treat emissions of an individual HAP as zero if all three of the performance test runs result in a

nondetect measurement, and the method detection limit is less than or equal to 1 parts per million by volume, dry basis (ppmvd). Otherwise, nondetect data for individual HAP must be treated as one-half of the method detection limit.

(h) *Calculation of percent reduction across a control system.* When determining the control system efficiency for any control system included in your emissions averaging plan (not to exceed 90 percent) and when complying with any of the compliance options based on percent reduction across a control system in Table 1B to this subpart, as part of the performance test, you must calculate the percent reduction using Equation 1 of this section:

$$PR = CE \times \frac{ER_{in} - ER_{out}}{ER_{in}} (100) \quad (Eq. 1)$$

Where:

PR = percent reduction, percent;

CE = capture efficiency, percent (determined for reconstituted wood product presses and board coolers as required in Table 4 to this subpart);

$ER_{in}$  = emission rate of total HAP (calculated as the sum of the emission rates of acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde), THC, formaldehyde, or methanol in the inlet vent stream of the control device, pounds per hour;

$ER_{out}$  = emission rate of total HAP (calculated as the sum of the emission rates of acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde), THC, formaldehyde, or methanol in the outlet vent stream of the control device, pounds per hour.

(i) *Calculation of mass per unit production.* To comply with any of the production-based compliance options in Table 1A to this subpart, you must calculate your mass per unit production emissions for each performance test run using Equation 2 of this section:

$$MP = \frac{ER_{HAP}}{P \times CE} \quad (Eq. 2)$$

Where:

MP = mass per unit production, pounds per oven dried ton OR pounds per thousand square feet on a specified thickness basis (see paragraph (j) of this section if you need to convert from one thickness basis to another);

$ER_{HAP}$  = emission rate of total HAP (calculated as the sum of the emission rates of acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde) in the stack, pounds per hour;

P = process unit production rate (throughput), oven dried tons per hour OR thousand square feet per hour on a specified thickness basis;

CE = capture efficiency, percent (determined for reconstituted wood product presses and board coolers as required in Table 4 to this subpart).

(j) *Thickness basis conversion.* Use Equation 3 of this section to convert from one thickness basis to another:

$$MSF_B = MSF_A \times \frac{A}{B} \quad (Eq. 3)$$

Where:

$MSF_A$  = thousand square feet on an A-inch basis;

$MSF_B$  = thousand square feet on a B-inch basis;

A = old thickness you are converting from, inches;

B = new thickness you are converting to, inches.

(k) *Establishing thermal oxidizer operating requirements.* If you operate a thermal oxidizer, you must establish your thermal oxidizer operating parameters according to paragraphs (k)(1) through (3) of this section.

(1) During the performance test, you must continuously monitor the firebox temperature during each of the required 1-hour test runs. For regenerative thermal oxidizers, you may measure the temperature in multiple locations (e.g., one location per burner) in the combustion chamber and calculate the average of the temperature measurements prior to reducing the temperature data to 15-minute averages for purposes of establishing your minimum firebox temperature. The minimum firebox temperature must then be established as the average of the three minimum 15-minute firebox temperatures monitored during the three test runs. Multiple three-run performance tests may be conducted to establish a range of parameter values under different operating conditions.

(2) You may establish a different minimum firebox temperature for your thermal oxidizer by submitting the notification specified in §63.2280(g) and conducting a repeat performance test as specified in paragraph (k)(1) of this section that demonstrates compliance with the applicable compliance options of this subpart.

(3) If your thermal oxidizer is a combustion unit that accepts process exhaust into the flame zone, then you are exempt from the performance testing and monitoring requirements specified in paragraphs (k)(1) and (2) of this section. To demonstrate initial compliance, you must submit documentation with your Notification of Compliance Status showing that process exhausts controlled by the combustion unit enter into the flame zone.

(l) *Establishing catalytic oxidizer operating requirements.* If you operate a catalytic oxidizer, you must establish your catalytic oxidizer operating parameters according to paragraphs (l)(1) and (2) of this section.

(1) During the performance test, you must continuously monitor during the required 1-hour test runs either the temperature at the inlet to each catalyst bed or the temperature in the combustion chamber. For regenerative catalytic oxidizers, you must calculate the average of the temperature measurements from each catalyst bed inlet or within the combustion chamber prior to reducing the temperature data to 15-minute averages for purposes of establishing your minimum catalytic oxidizer temperature. The minimum catalytic oxidizer temperature must then be established as the average of the three minimum 15-minute temperatures monitored during the three test runs. Multiple three-run performance tests may be conducted to establish a range of parameter values under different operating conditions.

(2) You may establish a different minimum catalytic oxidizer temperature by submitting the notification specified in §63.2280(g) and conducting a repeat performance test as specified in paragraphs (l)(1) and (2) of this section that demonstrates compliance with the applicable compliance options of this subpart.

(m) *Establishing biofilter operating requirements.* If you operate a biofilter, you must establish your biofilter operating requirements according to paragraphs (m)(1) through (3) of this section.

(1) During the performance test, you must continuously monitor the biofilter bed temperature during each of the required 1-hour test runs. To monitor biofilter bed temperature, you may use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15-minute averages for purposes of establishing biofilter bed temperature limits. The biofilter bed temperature range must be established as the minimum and maximum 15-minute biofilter bed temperatures monitored during the three test runs. You may base your biofilter bed temperature range on values recorded during previous performance tests provided that the data used to establish the temperature

ranges have been obtained using the test methods required in this subpart. If you use data from previous performance tests, you must certify that the biofilter and associated process unit(s) have not been modified subsequent to the date of the performance tests. Replacement of the biofilter media with the same type of material is not considered a modification of the biofilter for purposes of this section.

(2) For a new biofilter installation, you will be allowed up to 180 days following the compliance date or 180 days following initial startup of the biofilter to complete the requirements in paragraph (m)(1) of this section.

(3) You may expand your biofilter bed temperature operating range by submitting the notification specified in §63.2280(g) and conducting a repeat performance test as specified in paragraph (m)(1) of this section that demonstrates compliance with the applicable compliance options of this subpart.

(n) *Establishing operating requirements for process units meeting compliance options without a control device.* If you operate a process unit that meets a compliance option in Table 1A to this subpart, or is a process unit that generates debits in an emissions average without the use of a control device, you must establish your process unit operating parameters according to paragraphs (n)(1) through (2) of this section.

(1) During the performance test, you must identify and document the process unit controlling parameter (s) that affect total HAP emissions during the three-run performance test. The controlling parameters you identify must coincide with the representative operating conditions you describe according to §63.2262 (b)(2). For each parameter, you must specify appropriate monitoring methods, monitoring frequencies, and for continuously monitored parameters, averaging times not to exceed 24 hours. The operating limit for each controlling parameter must then be established as the minimum, maximum, range, or average (as appropriate depending on the parameter) recorded during the performance test. Multiple three-run performance tests may be conducted to establish a range of parameter values under different operating conditions.

(2) You may establish different controlling parameter limits for your process unit by submitting the notification specified in §63.2280(g) and conducting a repeat performance test as specified in paragraph (n)(1) of this section that demonstrates compliance with the compliance options in Table 1A to this subpart or is used to establish emission averaging debits for an uncontrolled process unit.

(o) *Establishing operating requirements using THC CEMS.* If you choose to meet the operating requirements by monitoring THC concentration instead of monitoring control device or process operating parameters, you must establish your THC concentration operating requirement according to paragraphs (o)(1) through (2) of this section.

(1) During the performance test, you must continuously monitor THC concentration using your CEMS during each of the required 1-hour test runs. The maximum THC concentration must then be established as the average of the three maximum 15-minute THC concentrations monitored during the three test runs. Multiple three-run performance tests may be conducted to establish a range of THC concentration values under different operating conditions.

(2) You may establish a different maximum THC concentration by submitting the notification specified in §63.2280(g) and conducting a repeat performance test as specified in paragraph (o)(1) of this section that demonstrates compliance with the compliance options in Tables 1A and 1B to this subpart.

[69 FR 46011, July 30, 2004, as amended at 71 FR 8372, Feb. 16, 2006]

### § 63.2263 Initial compliance demonstration for a dry rotary dryer.

If you operate a dry rotary dryer, you must demonstrate that your dryer processes furnish with an inlet moisture content of less than or equal to 30 percent (by weight, dry basis) and operates with a dryer inlet temperature of less than or equal to 600 °F. You must designate and clearly identify each dry rotary dryer. You must record the inlet furnish moisture content (dry basis) and inlet dryer operating temperature according to §63.2269(a), (b), and (c) and §63.2270 for a minimum of 30 calendar days. You must submit the highest recorded 24-hour average inlet furnish moisture content and the highest recorded 24-hour average dryer inlet temperature with your Notification of Compliance Status. In addition, you must submit with the Notification of Compliance Status a signed statement by a responsible official that certifies with truth, accuracy, and completeness that the dry rotary dryer will dry furnish with a maximum inlet moisture content less than or equal to 30 percent (by weight, dry basis) and will operate with a maximum inlet temperature of less than or equal to 600 °F in the future.



**§ 63.2264 Initial compliance demonstration for a hardwood veneer dryer.**

If you operate a hardwood veneer dryer, you must record the annual volume percentage of softwood veneer species processed in the dryer as follows:

(a) Use Equation 1 of this section to calculate the annual volume percentage of softwood species dried:

$$SW\% = \frac{SW}{T} (100) \quad (Eq. 1)$$

Where:

SW% = annual volume percent softwood species dried;

SW = softwood veneer dried during the previous 12 months, thousand square feet (3/8-inch basis);

T = total softwood and hardwood veneer dried during the previous 12 months, thousand square feet (3/8-inch basis).

(b) You must designate and clearly identify each hardwood veneer dryer. Submit with the Notification of Compliance Status the annual volume percentage of softwood species dried in the dryer based on your dryer production for the 12 months prior to the compliance date specified for your source in §63.2233. If you did not dry any softwood species in the dryer during the 12 months prior to the compliance date, then you need only to submit a statement indicating that no softwood species were dried. In addition, submit with the Notification of Compliance Status a signed statement by a responsible official that certifies with truth, accuracy, and completeness that the veneer dryer will be used to process less than 30 volume percent softwood species in the future.

**§ 63.2265 Initial compliance demonstration for a softwood veneer dryer.**

If you operate a softwood veneer dryer, you must develop a plan for review and approval for minimizing fugitive emissions from the veneer dryer heated zones, and you must submit the plan with your Notification of Compliance Status.

**§ 63.2266 Initial compliance demonstration for a veneer redryer.**

If you operate a veneer redryer, you must record the inlet moisture content of the veneer processed in the redryer according to §63.2269(a) and (c) and §63.2270 for a minimum of 30 calendar days. You must designate and clearly identify each veneer redryer. You must submit the highest recorded 24-hour average inlet veneer moisture content with your Notification of Compliance Status to show that your veneer redryer processes veneer with an inlet moisture content of less than or equal to 25 percent (by weight, dry basis). In addition, submit with the Notification of Compliance Status a signed statement by a responsible official that certifies with truth, accuracy, and completeness that the veneer redryer will dry veneer with a moisture content less than 25 percent (by weight, dry basis) in the future.

**§ 63.2267 Initial compliance demonstration for a reconstituted wood product press or board cooler.**

If you operate a reconstituted wood product press at a new or existing affected source or a reconstituted wood product board cooler at a new affected source, then you must either use a wood products enclosure as defined in §63.2292 or measure the capture efficiency of the capture device for the press or board cooler using Methods 204 and 204A through 204F of 40 CFR part 51, appendix M (as appropriate), or using the alternative tracer gas method contained in appendix A to this subpart. You must submit documentation that the wood products enclosure meets the press enclosure design criteria in §63.2292 or the results of the capture efficiency verification with your Notification of Compliance Status.

**§ 63.2268 Initial compliance demonstration for a wet control device.**

If you use a wet control device as the sole means of reducing HAP emissions, you must develop and

implement a plan for review and approval to address how organic HAP captured in the wastewater from the wet control device is contained or destroyed to minimize re-release to the atmosphere such that the desired emissions reductions are obtained. You must submit the plan with your Notification of Compliance Status.

### **§ 63.2269 What are my monitoring installation, operation, and maintenance requirements?**

(a) *General continuous parameter monitoring requirements.* You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to paragraphs (a)(1) through (3) of this section.

(1) The CPMS must be capable of completing a minimum of one cycle of operation (sampling, analyzing, and recording) for each successive 15-minute period.

(2) At all times, you must maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(3) Record the results of each inspection, calibration, and validation check.

(b) *Temperature monitoring.* For each temperature monitoring device, you must meet the requirements in paragraphs (a) and (b)(1) through (6) of this section.

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

(2) Use a temperature sensor with a minimum accuracy of 4 °F or 0.75 percent of the temperature value, whichever is larger.

(3) If a chart recorder is used, it must have a sensitivity with minor divisions not more than 20 °F.

(4) 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 nearby the process temperature sensor must yield a reading within 30 °F of the process temperature sensor's reading.

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

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

(c) *Wood moisture monitoring.* For each furnish or veneer moisture meter, you must meet the requirements in paragraphs (a)(1) through (3) and paragraphs (c)(1) through (5) of this section.

(1) For dry rotary dryers, use a continuous moisture monitor with a minimum accuracy of 1 percent (dry basis) moisture or better in the 25 to 35 percent (dry basis) moisture content range. For veneer redryers, use a continuous moisture monitor with a minimum accuracy of 3 percent (dry basis) moisture or better in the 15 to 25 percent (dry basis) moisture content range. Alternatively, you may use a continuous moisture monitor with a minimum accuracy of 5 percent (dry basis) moisture or better for dry rotary dryers used to dry furnish with less than 25 percent (dry basis) moisture or for veneer redryers used to redry veneer with less than 20 percent (dry basis) moisture.

(2) Locate the moisture monitor in a position that provides a representative measure of furnish or veneer moisture.

(3) Calibrate the moisture monitor based on the procedures specified by the moisture monitor manufacturer at least once per semiannual compliance period (or more frequently if recommended by the moisture monitor manufacturer).

(4) At least quarterly, inspect all components of the moisture monitor for integrity and all electrical connections for continuity.

(5) Use Equation 1 of this section to convert percent moisture measurements wet basis to a dry basis:

$$MC_{dry} = \frac{MC_{wet}/100}{1 - (MC_{wet}/100)} (100) \quad (Eq. 1)$$

Where:

$MC_{dry}$  = percent moisture content of wood material (weight percent, dry basis);

$MC_{wet}$  = percent moisture content of wood material (weight percent, wet basis).

(d) *Continuous emission monitoring system(s)*. Each CEMS must be installed, operated, and maintained according to paragraphs (d)(1) through (4) of this section.

(1) Each CEMS for monitoring THC concentration must be installed, operated, and maintained according to Performance Specification 8 of 40 CFR part 60, appendix B. You must also comply with Procedure 1 of 40 CFR part 60, appendix F.

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to Performance Specification 8 of 40 CFR part 60, appendix B.

(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.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2) and § 63.2270(d) and (e).

[69 FR 46011, July 30, 2004, as amended at 71 FR 8372, Feb. 16, 2006]

### Continuous Compliance Requirements

#### § 63.2270 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for, as appropriate, monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the process unit is operating. For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. 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. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities; data recorded during periods of startup, shutdown, and malfunction; or data recorded during periods of control device downtime covered in any approved routine control device maintenance exemption in data averages and calculations used to report emission or operating levels, nor may such data be used in fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control system.

(d) Except as provided in paragraph (e) of this section, determine the 3-hour block average of all recorded readings, calculated after every 3 hours of operation as the average of the evenly spaced recorded readings in the previous 3 operating hours (excluding periods described in paragraphs (b) and (c) of this section).

(e) For dry rotary dryer and veneer redryer wood moisture monitoring, dry rotary dryer temperature monitoring, biofilter bed temperature monitoring, and biofilter outlet THC monitoring, determine the 24-

hour block average of all recorded readings, calculated after every 24 hours of operation as the average of the evenly spaced recorded readings in the previous 24 operating hours (excluding periods described in paragraphs (b) and (c) of this section).

(f) To calculate the data averages for each 3-hour or 24-hour averaging period, you must have at least 75 percent of the required recorded readings for that period using only recorded readings that are based on valid data (*i.e.*, not from periods described in paragraphs (b) and (c) of this section).

**§ 63.2271 How do I demonstrate continuous compliance with the compliance options, operating requirements, and work practice requirements?**

(a) You must demonstrate continuous compliance with the compliance options, operating requirements, and work practice requirements in §§63.2240 and 63.2241 that apply to you according to the methods specified in Tables 7 and 8 to this subpart.

(b) You must report each instance in which you did not meet each compliance option, operating requirement, and work practice requirement in Tables 7 and 8 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction and periods of control device maintenance specified in paragraphs (b)(1) through (3) of this section. These instances are deviations from the compliance options, operating requirements, and work practice requirements in this subpart. These deviations must be reported according to the requirements in §63.2281.

(1) [Reserved]

(2) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

(3) Deviations that occur during periods of control device maintenance covered by any approved routine control device maintenance exemption are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with the approved routine control device maintenance exemption.

[69 FR 46011, July 30, 2004, as amended at 71 FR 20463, Apr. 20, 2006]

**Notifications, Reports, and Records**

**§ 63.2280 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) by the dates specified.

(b) You must submit an Initial Notification no later than 120 calendar days after September 28, 2004, or after initial startup, whichever is later, as specified in §63.9(b)(2).

(c) If you are required to conduct a performance test, you must submit a written notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as specified in §63.7(b)(1).

(d) If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Tables 4, 5, and 6 to this subpart, you must submit a Notification of Compliance Status as specified in §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 or 6 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 5 and 6 to this subpart that includes a performance test conducted according to the requirements in Table 4 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).

(e) If you request a routine control device maintenance exemption according to §63.2251, you must submit your request for the exemption no later than 30 days before the compliance date.

(f) If you use the emissions averaging compliance option in §63.2240(c), you must submit an Emissions Averaging Plan to the EPA Administrator for approval no later than 1 year before the compliance date or no later than 1 year before the date you would begin using an emissions average, whichever is later. The Emissions Averaging Plan must include the information in paragraphs (f)(1) through (6) of this section.

(1) Identification of all the process units to be included in the emissions average indicating which process units will be used to generate credits, and which process units that are subject to compliance options in Tables 1A and 1B to this subpart will be uncontrolled (used to generate debits) or under-controlled (used to generate debits and credits).

(2) Description of the control system used to generate emission credits for each process unit used to generate credits.

(3) Determination of the total HAP control efficiency for the control system used to generate emission credits for each credit-generating process unit.

(4) Calculation of the RMR and AMR, as calculated using Equations 1 through 3 of §63.2240(c)(1).

(5) Documentation of total HAP measurements made according to §63.2240(c)(2)(iv) and other relevant documentation to support calculation of the RMR and AMR.

(6) A summary of the operating parameters you will monitor and monitoring methods for each debit-generating and credit-generating process unit.

(g) You must notify the EPA Administrator within 30 days before you take any of the actions specified in paragraphs (g)(1) through (3) of this section.

(1) You modify or replace the control system for any process unit subject to the compliance options and operating requirements in this subpart.

(2) You shut down any process unit included in your Emissions Averaging Plan.

(3) You change a continuous monitoring parameter or the value or range of values of a continuous monitoring parameter for any process unit or control device.

### **§ 63.2281 What reports must I submit and when?**

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and as specified 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 §63.2233 ending on June 30 or December 31, and lasting at least 6 months, but less than 12 months. For example, if your compliance date is March 1, then the first semiannual reporting period would begin on March 1 and end on December 31.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending on June 30 and December 31, respectively.

(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 for the semiannual reporting period ending on June 30 and December 31, respectively.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §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 the information in paragraphs (c)(1) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of 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 SSMP, the compliance report must include the information specified in §63.10(d)(5)(i).

(5) A description of control device maintenance performed while the control device was offline and one or more of the process units controlled by the control device was operating, including the information specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) The date and time when the control device was shut down and restarted.

(ii) Identification of the process units that were operating and the number of hours that each process unit operated while the control device was offline.

(iii) A statement of whether or not the control device maintenance was included in your approved routine control device maintenance exemption developed pursuant to §63.2251. If the control device maintenance was included in your approved routine control device maintenance exemption, then you must report the information in paragraphs (c)(5)(iii)(A) through (C) of this section.

(A) The total amount of time that each process unit controlled by the control device operated during the semiannual compliance period and during the previous semiannual compliance period.

(B) The amount of time that each process unit controlled by the control device operated while the control device was down for maintenance covered under the routine control device maintenance exemption during the semiannual compliance period and during the previous semiannual compliance period.

(C) Based on the information recorded under paragraphs (c)(5)(iii)(A) and (B) of this section for each process unit, compute the annual percent of process unit operating uptime during which the control device was offline for routine maintenance using Equation 1 of this section.

$$RM = \frac{DT_p + DT_c}{PU_p + PU_c} \quad (Eq. 1)$$

Where:

RM = Annual percentage of process unit uptime during which control device is down for routine control device maintenance;

PU<sub>p</sub> = Process unit uptime for the previous semiannual compliance period;

PU<sub>c</sub> = Process unit uptime for the current semiannual compliance period;

DT<sub>p</sub> = Control device downtime claimed under the routine control device maintenance exemption for the previous semiannual compliance period;

$DT_c$  = Control device downtime claimed under the routine control device maintenance exemption for the current semiannual compliance period.

- (6) The results of any performance tests conducted during the semiannual reporting period.
- (7) If there are no deviations from any applicable compliance option or operating requirement, and there are no deviations from the requirements for work practice requirements in Table 8 to this subpart, a statement that there were no deviations from the compliance options, operating requirements, or work practice requirements during the reporting period.
- (8) 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 a compliance option or operating requirement and for each deviation from the work practice requirements in Table 8 to this subpart that occurs at an affected source where you are not using a CMS to comply with the compliance options, operating requirements, or work practice requirements in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (6) of this section and in paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.
  - (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), as applicable, and the corrective action taken.
  - (e) For each deviation from a compliance option or operating requirement occurring at an affected source where you are using a CMS to comply with the compliance options and operating requirements in this subpart, you must include the information in paragraphs (c)(1) through (6) and paragraphs (e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.
    - (1) The date and time that each malfunction started and stopped.
    - (2) The date and time 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 startup, shutdown, or malfunction; during a period of control device maintenance covered in your approved routine control device maintenance exemption; 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 startup, shutdown, control system problems, control device maintenance, 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 source operating time during that reporting period.
    - (8) A brief description of the process units.
    - (9) A brief description of the CMS.
    - (10) The date of the latest CMS certification or audit.
    - (11) A description of any changes in CMS, processes, or controls since the last reporting period

(f) If you comply with the emissions averaging compliance option in §63.2240(c), you must include in your semiannual compliance report calculations based on operating data from the semiannual reporting period that demonstrate that actual mass removal equals or exceeds the required mass removal.

(g) 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 §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any compliance option, operating requirement, 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 permitting authority.

### § 63.2282 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (4) 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) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Documentation of your approved routine control device maintenance exemption, if you request such an exemption under §63.2251.

(4) Records of performance tests and performance evaluations as required in §63.10(b)(2)(vii).

(b) You must keep the records required in Tables 7 and 8 to this subpart to show continuous compliance with each compliance option, operating requirement, and work practice requirement that applies to you.

(c) For each CEMS, you must keep the following records.

(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) Request for alternatives to relative accuracy testing for CEMS as required in §63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(d) If you comply with the emissions averaging compliance option in §63.2240(c), you must keep records of all information required to calculate emission debits and credits.

(e) If you operate a catalytic oxidizer, you must keep records of annual catalyst activity checks and subsequent corrective actions.

### § 63.2283 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 as specified in §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 onsite 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.



**Other Requirements and Information****§ 63.2290 What parts of the General Provisions apply to me?**

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.13 apply to you.

**§ 63.2291 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if 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 EPA Administrator 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 listed in paragraphs (c) (1) through (4) of this section.

(1) Approval of alternatives to the compliance options, operating requirements, and work practice requirements in §§63.2240 and 63.2241 as specified in §63.6(g). For the purposes of delegation authority under 40 CFR part 63, subpart E, "compliance options" represent "emission limits"; "operating requirements" represent "operating limits"; and "work practice requirements" represent "work practice standards."

(2) Approval of major alternatives to test methods as specified in §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring as specified in §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting as specified in §63.10(f) and as defined in §63.90.

[69 FR 46011, July 30, 2004, as amended at 72 FR 61063, Oct. 29, 2007]

**§ 63.2292 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, and in this section as follows:

*Affected source* means the collection of dryers, refiners, blenders, formers, presses, board coolers, and other process units associated with the manufacturing of plywood and composite wood products. The affected source includes, but is not limited to, green end operations, refining, drying operations (including any combustion unit exhaust stream routinely used to direct fire process unit(s)), resin preparation, blending and forming operations, pressing and board cooling operations, and miscellaneous finishing operations (such as sanding, sawing, patching, edge sealing, and other finishing operations not subject to other NESHAP). The affected source also includes onsite storage of raw materials used in the manufacture of plywood and/or composite wood products, such as resins; onsite wastewater treatment operations specifically associated with plywood and composite wood products manufacturing; and miscellaneous coating operations (defined elsewhere in this section). The affected source includes lumber kilns at PCWP manufacturing facilities and at any other kind of facility.

*Agricultural fiber* means the fiber of an annual agricultural crop. Examples of agricultural fibers include, but are not limited to, wheat straw, rice straw, and bagasse.

*Biofilter* means an enclosed control system such as a tank or series of tanks with a fixed roof that contact emissions with a solid media (such as bark) and use microbiological activity to transform organic pollutants in a process exhaust stream to innocuous compounds such as carbon dioxide, water, and inorganic salts. Wastewater treatment systems such as aeration lagoons or activated sludge systems are not considered to be biofilters.

*Capture device* means a hood, enclosure, or other means of collecting emissions into a duct so that the emissions can be measured.

*Capture efficiency* means the fraction (expressed as a percentage) of the pollutants from an emission source that are collected by a capture device.

*Catalytic oxidizer* means a control system that combusts or oxidizes, in the presence of a catalyst, exhaust gas from a process unit. Catalytic oxidizers include regenerative catalytic oxidizers and thermal catalytic oxidizers.

*Combustion unit* means a dryer burner, process heater, or boiler. Combustion units may be used for combustion of organic HAP emissions.

*Control device* means any equipment that reduces the quantity of HAP emitted to the air. The device may destroy the HAP or secure the HAP for subsequent recovery. Control devices include, but are not limited to, thermal or catalytic oxidizers, combustion units that incinerate process exhausts, biofilters, and condensers.

*Control system or add-on control system* means the combination of capture and control devices used to reduce HAP emissions to the atmosphere.

*Conveyor strand dryer* means a conveyor dryer used to reduce the moisture of wood strands used in the manufacture of oriented strandboard, laminated strand lumber, or other wood strand-based products. A *conveyor strand dryer* is a process unit.

*Conveyor strand dryer zone* means each portion of a conveyor strand dryer with a separate heat exchange system and exhaust vent(s). Conveyor strand dryers contain multiple zones (e.g., three zones), which may be divided into multiple sections.

*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 compliance option, operating requirement, or work practice requirement;
- (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 compliance option, operating requirement, or work practice requirement in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

*Direct-fired process unit* means a process unit that is heated by the passing of combustion exhaust through the process unit such that the process material is contacted by the combustion exhaust.

*Dryer heated zones* means the zones of a softwood veneer dryer or fiberboard mat dryer that are equipped with heating and hot air circulation units. The cooling zone(s) of the dryer through which ambient air is blown are not part of the dryer heated zones.

*Dry forming* means the process of making a mat of resinated fiber to be compressed into a reconstituted wood product such as particleboard, oriented strandboard, medium density fiberboard, or hardboard.

*Dry rotary dryer* means a rotary dryer that dries wood particles or fibers with a maximum inlet moisture content of less than or equal to 30 percent (by weight, dry basis) and operates with a maximum inlet temperature of less than or equal to 600 °F. A dry rotary dryer is a process unit.

*Engineered wood product* means a product made with lumber, veneers, strands of wood, or from other small wood elements that are bound together with resin. Engineered wood products include, but are not limited to, laminated strand lumber, laminated veneer lumber, parallel strand lumber, wood I-joists, and glue-laminated beams.

*Fiber* means the discrete elements of wood or similar cellulosic material, which are separated by mechanical means, as in refining, that can be formed into boards.

*Fiberboard* means a composite panel composed of cellulosic fibers (usually wood or agricultural material) made by wet forming and compacting a mat of fibers. Fiberboard density generally is less than 0.50 grams per cubic centimeter (31.5 pounds per cubic foot).

*Fiberboard mat dryer* means a dryer used to reduce the moisture of wet-formed wood fiber mats by applying heat. A *fiberboard mat dryer* is a process unit.

*Flame zone* means the portion of the combustion chamber in a combustion unit that is occupied by the flame envelope.

*Furnish* means the fibers, particles, or strands used for making boards.

*Glue-laminated beam* means a structural wood beam made by bonding lumber together along its faces with resin.

*Green rotary dryer* means a rotary dryer that dries wood particles or fibers with an inlet moisture content of greater than 30 percent (by weight, dry basis) at any dryer inlet temperature or operates with an inlet temperature of greater than 600 °F with any inlet moisture content. A *green rotary dryer* is a process unit.

*Group 1 miscellaneous coating operations* means application of edge seals, nail lines, logo (or other information) paint, shelving edge fillers, trademark/grade stamp inks, and wood putty patches to plywood and composite wood products (except kiln-dried lumber) on the same site where the plywood and composite wood products are manufactured. Group 1 miscellaneous coating operations also include application of synthetic patches to plywood at new affected sources.

*Hardboard* means a composite panel composed of inter-felted cellulosic fibers made by dry or wet forming and pressing of a resinated fiber mat. Hardboard generally has a density of 0.50 grams per cubic centimeter (31.5 pounds per cubic foot) or greater.

*Hardboard oven* means an oven used to heat treat or temper hardboard after hot pressing. Humidification chambers are not considered as part of hardboard ovens. A *hardboard oven* is a process unit.

*Hardwood* means the wood of a broad-leafed tree, either deciduous or evergreen. Examples of hardwoods include, but are not limited to, aspen, birch, poplar, and oak.

*Hardwood veneer dryer* means a dryer that removes excess moisture from veneer by conveying the veneer through a heated medium on rollers, belts, cables, or wire mesh. Hardwood veneer dryers are used to dry veneer with less than 30 percent softwood species on an annual volume basis. Veneer kilns that operate as batch units, veneer dryers heated by radio frequency or microwaves that are used to redry veneer, and veneer redryers (defined elsewhere in this section) that are heated by conventional means are not considered to be hardwood veneer dryers. A *hardwood veneer dryer* is a process unit.

*Kiln-dried lumber* means solid wood lumber that has been dried in a lumber kiln.

*Laminated strand lumber (LSL)* means a composite product formed into a billet made of thin wood strands cut from whole logs, resinated, and pressed together with the grain of each strand oriented parallel to the length of the finished product.

*Laminated veneer lumber (LVL)* means a composite product formed into a billet made from layers of resinated wood veneer sheets or pieces pressed together with the grain of each veneer aligned primarily along the length of the finished product. *Laminated veneer lumber* is also known as parallel strand lumber (PSL).

*Lumber* means boards or planks sawed or split from logs or timber, including logs or timber processed for use as utility poles or other wood components. Lumber can be either green (non-dried) or dried. Lumber is typically either air-dried or kiln-dried.

*Lumber kiln* means an enclosed dryer operated by applying heat to reduce the moisture content of

lumber.

*Medium density fiberboard (MDF)* means a composite panel composed of cellulosic fibers (usually wood or agricultural fiber) made by dry forming and pressing of a resinated fiber mat.

*Method detection limit* means the minimum concentration of an analyte that can be determined with 99 percent confidence that the true value is greater than zero.

*Miscellaneous coating operations* means application of any of the following to plywood or composite wood products: edge seals, moisture sealants, anti-skid coatings, company logos, trademark or grade stamps, nail lines, synthetic patches, wood patches, wood putty, concrete forming oils, glues for veneer composing, and shelving edge fillers. Miscellaneous coating operations also include the application of primer to oriented strandboard siding that occurs at the same site as oriented strandboard manufacture and application of asphalt, clay slurry, or titanium dioxide coatings to fiberboard at the same site of fiberboard manufacture.

*Molded particleboard* means a shaped composite product (other than a composite panel) composed primarily of cellulosic materials (usually wood or agricultural fiber) generally in the form of discrete pieces or particles, as distinguished from fibers, which are pressed together with resin.

*MSF* means thousand squarefeet (92.9 square meters). Square footage of panels is usually measured on a thickness basis, such as 3/8-inch, to define the total volume of panels. Equation 6 of §63.2262(j) shows how to convert from one thickness basis to another.

*Nondetect data* means, for the purposes of this subpart, any value that is below the method detection limit.

*Non-HAP coating* means a coating with HAP contents below 0.1 percent by mass for Occupational Safety and Health Administration-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and below 1.0 percent by mass for other HAP compounds.

*1-hour period* means a 60-minute period.

*Oriented strandboard (OSB)* means a composite panel produced from thin wood strands cut from whole logs, formed into resinated layers (with the grain of strands in one layer oriented perpendicular to the strands in adjacent layers), and pressed.

*Oven-dried ton(s) (ODT)* means tons of wood dried until all of the moisture in the wood is removed. One oven-dried ton equals 907 oven-dried kilograms.

*Parallel strand lumber (PSL)* means a composite product formed into a billet made from layers of resinated wood veneer sheets or pieces pressed together with the grain of each veneer aligned primarily along the length of the finished product. *Parallel strand lumber* is also known as laminated veneer lumber (LVL).

*Partial wood products enclosure* means an enclosure that does not meet the design criteria for a wood products enclosure as defined in this subpart.

*Particle* means a discrete, small piece of cellulosic material (usually wood or agricultural fiber) produced mechanically and used as the aggregate for a particleboard.

*Particleboard* means a composite panel composed primarily of cellulosic materials (usually wood or agricultural fiber) generally in the form of discrete pieces or particles, as distinguished from fibers, which are pressed together with resin.

*Plywood* means a panel product consisting of layers of wood veneers hot pressed together with resin. Plywood includes panel products made by hot pressing (with resin) veneers to a substrate such as particleboard, medium density fiberboard, or lumber. Plywood products may be flat or curved.

*Plywood and composite wood products (PCWP) manufacturing facility* means a facility that manufactures plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber, generally with resin under heat and pressure, to form a panel, engineered wood product, or other product defined in §63.2292. Plywood and composite wood products

manufacturing facilities also include facilities that manufacture dry veneer and lumber kilns located at any facility. Plywood and composite wood products include, but are not limited to, plywood, veneer, particleboard, molded particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, kiln-dried lumber, and glue-laminated beams.

*Press predryer* means a dryer used to reduce the moisture and elevate the temperature by applying heat to a wet-formed fiber mat before the mat enters a hot press. A *press predryer* is a process unit.

*Pressurized refiner* means a piece of equipment operated under pressure for preheating (usually by steaming) wood material and refining (rubbing or grinding) the wood material into fibers. Pressurized refiners are operated with continuous infeed and outfeed of wood material and maintain elevated internal pressures (i.e., there is no pressure release) throughout the preheating and refining process. A *pressurized refiner* is a process unit.

*Primary tube dryer* means a single-stage tube dryer or the first stage of a multi-stage tube dryer. Tube dryer stages are separated by vents for removal of moist gases between stages (e.g., a product cyclone at the end of a single-stage dryer or between the first and second stages of a multi-stage tube dryer). The first stage of a multi-stage tube dryer is used to remove the majority of the moisture from the wood furnish (compared to the moisture reduction in subsequent stages of the tube dryer). Blow-lines used to apply resin are considered part of the primary tube dryer. A *primary tube dryer* is a process unit.

*Process unit* means equipment classified according to its function such as a blender, dryer, press, former, or board cooler.

*Reconstituted wood product board cooler* means a piece of equipment designed to reduce the temperature of a board by means of forced air or convection within a controlled time period after the board exits the reconstituted wood product press unloader. Board coolers include wicket and star type coolers commonly found at medium density fiberboard and particleboard plants. Board coolers do not include cooling sections of dryers (e.g., veneer dryers or fiberboard mat dryers) or coolers integrated into or following hardboard bake ovens or humidifiers. A *reconstituted wood product board cooler* is a process unit.

*Reconstituted wood product press* means a press, including (if applicable) the press unloader, that presses a resinated mat of wood fibers, particles, or strands between hot platens or hot rollers to compact and set the mat into a panel by simultaneous application of heat and pressure. Reconstituted wood product presses are used in the manufacture of hardboard, medium density fiberboard, particleboard, and oriented strandboard. Extruders are not considered to be reconstituted wood product presses. A *reconstituted wood product press* is a process unit.

*Representative operating conditions* means operation of a process unit during performance testing under the conditions that the process unit will typically be operating in the future, including use of a representative range of materials (e.g., wood material of a typical species mix and moisture content or typical resin formulation) and representative operating temperature range.

*Resin* means the synthetic adhesive (including glue) or natural binder, including additives, used to bond wood or other cellulosic materials together to produce plywood and composite wood products.

*Responsible official* means responsible official as defined in 40 CFR 70.2 and 40 CFR 71.2.

*Rotary strand dryer* means a rotary dryer operated by applying heat and used to reduce the moisture of wood strands used in the manufacture of oriented strandboard, laminated strand lumber, or other wood strand-based products. A *rotary strand dryer* is a process unit.

*Secondary tube dryer* means the second stage and subsequent stages following the primary stage of a multi-stage tube dryer. Secondary tube dryers, also referred to as relay dryers, operate at lower temperatures than the primary tube dryer they follow. Secondary tube dryers are used to remove only a small amount of the furnish moisture compared to the furnish moisture reduction across the primary tube dryer. A *secondary tube dryer* is a process unit.

*Softwood* means the wood of a coniferous tree. Examples of softwoods include, but are not limited to, Southern yellow pine, Douglas fir, and White spruce.

*Softwood veneer dryer* means a dryer that removes excess moisture from veneer by conveying the

veneer through a heated medium, generally on rollers, belts, cables, or wire mesh. Softwood veneer dryers are used to dry veneer with greater than or equal to 30 percent softwood species on an annual volume basis. Veneer kilns that operate as batch units, veneer dryers heated by radio frequency or microwaves that are used to redry veneer, and veneer redryers (defined elsewhere in this section) that are heated by conventional means are not considered to be softwood veneer dryers. A *softwood veneer dryer* is a process unit.

*Startup* means bringing equipment online and starting the production process.

*Startup, initial* means the first time equipment is put into operation. Initial startup does not include operation solely for testing equipment. Initial startup does not include subsequent startups (as defined in this section) following malfunction or shutdowns or following changes in product or between batch operations. Initial startup does not include startup of equipment that occurred when the source was an area source.

*Startup, shutdown, and malfunction plan (SSMP)* means a plan developed according to the provisions of §63.6(e)(3).

*Strand* means a long (with respect to thickness and width), flat wood piece specially cut from a log for use in oriented strandboard, laminated strand lumber, or other wood strand-based product.

*Temporary total enclosure (TTE)* means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source, as defined in Method 204 of 40 CFR part 51, appendix M.

*Thermal oxidizer* means a control system that combusts or oxidizes exhaust gas from a process unit. Thermal oxidizers include regenerative thermal oxidizers and combustion units.

*Total hazardous air pollutant emissions* means, for purposes of this subpart, the sum of the emissions of the following six compounds: acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde.

*Tube dryer* means a single-stage or multi-stage dryer operated by applying heat to reduce the moisture of wood fibers or particles as they are conveyed (usually pneumatically) through the dryer. Resin may or may not be applied to the wood material before it enters the tube dryer. Tube dryers do not include pneumatic fiber transport systems that use temperature and humidity conditioned pneumatic system supply air in order to prevent cooling of the wood fiber as it is moved through the process. A *tube dryer* is a process unit.

*Veneer* means thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.

*Veneer redryer* means a dryer heated by conventional means, such as direct wood-fired, direct-gas-fired, or steam heated, that is used to redry veneer that has been previously dried. Because the veneer dried in a veneer redryer has been previously dried, the inlet moisture content of the veneer entering the redryer is less than 25 percent (by weight, dry basis). Batch units used to redry veneer (such as redry cookers) are not considered to be veneer redryers. A *veneer redryer* is a process unit.

*Wet control device* means any equipment that uses water as a means of collecting an air pollutant. Wet control devices include scrubbers, wet electrostatic precipitators, and electrified filter beds. Wet control devices do not include biofilters or other equipment that destroys or degrades HAP.

*Wet forming* means the process of making a slurry of water, fiber, and additives into a mat of fibers to be compressed into a fiberboard or hardboard product.

*Wood I-joists* means a structural wood beam with an I-shaped cross section formed by bonding (with resin) wood or laminated veneer lumber flanges onto a web cut from a panel such as plywood or oriented strandboard.

*Wood products enclosure* means a permanently installed containment that was designed to meet the following physical design criteria:

- (1) Any natural draft opening shall be at least four equivalent opening diameters from each HAP-emitting

point, except for where board enters and exits the enclosure, unless otherwise specified by the EPA Administrator.

(2) The total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosure's four walls, floor, and ceiling.

(3) The average facial velocity of air through all natural draft openings shall be at least 3,600 meters per hour (200 feet per minute). The direction of airflow through all natural draft openings shall be into the enclosure.

(4) All access doors and windows whose areas are not included in item 2 of this definition and are not included in the calculation of facial velocity in item 3 of this definition shall be closed during routine operation of the process.

(5) The enclosure is designed and maintained to capture all emissions for discharge through a control device.

*Work practice requirement* means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[69 FR 46011, July 30, 2004, as amended at 71 FR 8372, Feb. 16, 2006]

**Table 1A to Subpart DDDD of Part 63—Production-Based Compliance Options**

<b>For the following process units . . .</b>	<b>You must meet the following production-based compliance option (total HAP<sup>a</sup> basis) . . .</b>
(1) Fiberboard mat dryer heated zones (at new affected sources only)	0.022 lb/MSF 1/2 inch;
(2) Green rotary dryers	0.058 lb/ODT.
(3) Hardboard ovens	0.022 lb/MSF 1/8 inch;
(4) Press predryers (at new affected sources only)	0.037 lb/MSF 1/2 inch;
(5) Pressurized refiners	0.039 lb/ODT.
(6) Primary tube dryers	0.26 lb/ODT.
(7) Reconstituted wood product board coolers (at new affected sources only)	0.014 lb/MSF 3/4 inch;
(8) Reconstituted wood product presses	0.30 lb/MSF 3/4 inch;
(9) Softwood veneer dryer heated zones	0.022 lb/MSF 3/8 inch;
(10) Rotary strand dryers	0.18 lb/ODT.
(11) Secondary tube dryers	0.010 lb/ODT.

<sup>a</sup>Total HAP, as defined in §63.2292, includes acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde. lb/ODT = pounds per oven-dried ton; lb/MSF = pounds per thousand square feet with a specified thickness basis (inches). Section 63.2262(j) shows how to convert from one thickness basis to another.

Note: There is no production-based compliance option for conveyor strand dryers.

**Table 1B to Subpart DDDD of Part 63—Add-on Control Systems Compliance Options**

<b>For each of the following process units . . .</b>	<b>You must comply with one of the following six compliance options by using an emissions control system . . .</b>
Fiberboard mat dryer heated zones (at new affected sources only); green rotary dryers; hardboard ovens; press predryers (at new affected sources only); pressurized refiners; primary tube dryers; secondary tube dryers; reconstituted wood product board coolers (at new affected sources only); reconstituted wood product presses; softwood veneer dryer heated zones; rotary strand dryers; conveyor strand dryer zone one (at existing affected sources); and conveyor strand dryer zones one and two (at new affected sources)	(1) Reduce emissions of total HAP, measured as THC (as carbon) <sup>a</sup> , by 90 percent; or (2) Limit emissions of total HAP, measured as THC (as carbon) <sup>a</sup> , to 20 ppmvd; or (3) Reduce methanol emissions by 90 percent; or (4) Limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled methanol emissions entering the control device are greater than or equal to 10 ppmvd; or (5) Reduce formaldehyde emissions by 90 percent; or (6) Limit formaldehyde emissions to less than or equal to 1 ppmvd if uncontrolled formaldehyde emissions entering the control device are greater than or equal to 10 ppmvd.

<sup>a</sup>You may choose to subtract methane from THC as carbon measurements.

**Table 2 to Subpart DDDD of Part 63—Operating Requirements**

If you operate a(n) . . .	You must . . .	Or you must . . .
(1) Thermal oxidizer	Maintain the 3-hour block average firebox temperature above the minimum temperature established during the performance test	Maintain the 3-hour block average THC concentration <sup>a</sup> in the thermal oxidizer exhaust below the maximum concentration established



		during the performance test.
(2) Catalytic oxidizer	Maintain the 3-hour block average catalytic oxidizer temperature above the minimum temperature established during the performance test; AND check the activity level of a representative sample of the catalyst at least every 12 months	Maintain the 3-hour block average THC concentration <sup>a</sup> in the catalytic oxidizer exhaust below the maximum concentration established during the performance test.
(3) Biofilter	Maintain the 24-hour block biofilter bed temperature within the range established according to §63.2262(m)	Maintain the 24-hour block average THC concentration <sup>a</sup> in the biofilter exhaust below the maximum concentration established during the performance test.
(4) Control device other than a thermal oxidizer, catalytic oxidizer, or biofilter	Petition the EPA Administrator for site-specific operating parameter(s) to be established during the performance test and maintain the average operating parameter(s) within the range(s) established during the performance test	Maintain the 3-hour block average THC concentration <sup>a</sup> in the control device exhaust below the maximum concentration established during the performance test.
(5) Process unit that meets a compliance option in Table 1A of this subpart, or a process unit that generates debits in an emissions average without the use of a control device	Maintain on a daily basis the process unit controlling operating parameter(s) within the ranges established during the performance test according to §63.2262(n)	Maintain the 3-hour block average THC concentration <sup>a</sup> in the process unit exhaust below the maximum concentration established during the performance test.

<sup>a</sup>You may choose to subtract methane from THC measurements.

**Table 3 to Subpart DDDD of Part 63—Work Practice Requirements**

For the following process units at existing or new affected sources . . .	You must . . .
(1) Dry rotary dryers	Process furnish with a 24-hour block average inlet moisture content of less than or equal to 30

	percent (by weight, dry basis); AND operate with a 24-hour block average inlet dryer temperature of less than or equal to 600 °F.
(2) Hardwood veneer dryers	Process less than 30 volume percent softwood species on an annual basis.
(3) Softwood veneer dryers	Minimize fugitive emissions from the dryer doors through (proper maintenance procedures) and the green end of the dryers (through proper balancing of the heated zone exhausts).
(4) Veneer redryers	Process veneer that has been previously dried, such that the 24-hour block average inlet moisture content of the veneer is less than or equal to 25 percent (by weight, dry basis).
(5) Group 1 miscellaneous coating operations	Use non-HAP coatings as defined in §63.2292.

Table 4 to Subpart DDDD of Part 63—Requirements for Performance Tests

For . . .	You must . . .	Using . . .
(1) each process unit subject to a compliance option in table 1A or 1B to this subpart or used in calculation of an emissions average under §63.2240(c)	select sampling port's location and the number of traverse ports	Method 1 or 1A of 40 CFR part 60, appendix A (as appropriate).
(2) each process unit subject to a compliance option in table 1A or 1B to this subpart or used in calculation of an emissions average under §63.2240(c)	determine velocity and volumetric flow rate	Method 2 in addition to Method 2A, 2C, 2D, 2F, or 2G in appendix A to 40 CFR part 60 (as appropriate).
(3) each process unit subject to a compliance option in table 1A or 1B to this subpart or used in calculation of an emissions average under §63.2240(c)	conduct gas molecular weight analysis	Method 3, 3A, or 3B in appendix A to 40 CFR part 60 (as appropriate).
(4) each process unit subject to a compliance option in table 1A or 1B to this subpart or used	measure moisture content of the stack gas	Method 4 in appendix A to 40 CFR part 60; OR Method 320 in appendix A to 40 CFR part 63; OR ASTM D6348-03 (IBR, see §63.14(b)).

in calculation of an emissions average under §63.2240(c)		
(5) each process unit subject to a compliance option in table 1B to this subpart for which you choose to demonstrate compliance using a total HAP as THC compliance option	measure emissions of total HAP as THC	Method 25A in appendix A to 40 CFR part 60. You may measure emissions of methane using EPA Method 18 in appendix A to 40 CFR part 60 and subtract the methane emissions from the emissions of total HAP as THC.
(6) each process unit subject to a compliance option in table 1A to this subpart; OR for each process unit used in calculation of an emissions average under §63.2240(c)	measure emissions of total HAP (as defined in §63.2292)	Method 320 in appendix A to 40 CFR part 63; OR the NCASI Method IM/CAN/WP-99.02 (IBR, see §63.14(f)); OR the NCASI Method ISS/FP-A105.01 (IBR, see §63.14(f)); OR ASTM D6348-03 (IBR, see §63.14(b)) provided that percent R as determined in Annex A5 of ASTM D6348-03 is equal or greater than 70 percent and less than or equal to 130 percent.
(7) each process unit subject to a compliance option in table 1B to this subpart for which you choose to demonstrate compliance using a methanol compliance option	measure emissions of methanol	Method 308 in appendix A to 40 CFR part 63; OR Method 320 in appendix A to 40 CFR part 63; OR the NCASI Method CI/WP-98.01 (IBR, see §63.14(f)); OR the NCASI Method IM/CAN/WP-99.02 (IBR, see §63.14(f)); OR the NCASI Method ISS/FP-A105.01 (IBR, see §63.14(f)).
(8) each process unit subject to a compliance option in table 1B to this subpart for which you choose to demonstrate compliance using a formaldehyde compliance option	measure emissions of formaldehyde	Method 316 in appendix A to 40 CFR part 63; OR Method 320 in appendix A to 40 CFR part 63; OR Method 0011 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication No. SW-846) for formaldehyde; OR the NCASI Method CI/WP-98.01 (IBR, see §63.14(f)); OR the NCASI Method IM/CAN/WP-99.02 (IBR, see §63.14(f)); OR the NCASI Method ISS/FP-A105.01 (IBR, see §63.14(f)).
(9) each reconstituted wood product press at a new or existing affected source or	meet the design specifications included in the definition of wood products	Methods 204 and 204A through 204F of 40 CFR part 51, appendix M, to determine capture efficiency (except for wood products enclosures as defined in §63.2292). Enclosures that

<p>reconstituted wood product board cooler at a new affected source subject to a compliance option in table 1B to this subpart or used in calculation of an emissions average under §63.2240(c)</p>	<p>enclosure in §63.2292; or determine the percent capture efficiency of the enclosure directing emissions to an add-on control device</p>	<p>meet the definition of wood products enclosure or that meet Method 204 requirements for a permanent total enclosure (PTE) are assumed to have a capture efficiency of 100 percent. Enclosures that do not meet either the PTE requirements or design criteria for a wood products enclosure must determine the capture efficiency by constructing a TTE according to the requirements of Method 204 and applying Methods 204A through 204F (as appropriate). As an alternative to Methods 204 and 204A through 204F, you may use the tracer gas method contained in appendix A to this subpart.</p>
<p>(10) each reconstituted wood product press at a new or existing affected source or reconstituted wood product board cooler at a new affected source subject to a compliance option in table 1A to this subpart</p>	<p>determine the percent capture efficiency</p>	<p>a TTE and Methods 204 and 204A through 204F (as appropriate) of 40 CFR part 51, appendix M. As an alternative to installing a TTE and using Methods 204 and 204A through 204F, you may use the tracer gas method contained in appendix A to this subpart. Enclosures that meet the design criteria (1) through (4) in the definition of wood products enclosure, or that meet Method 204 requirements for a PTE (except for the criteria specified in section 6.2 of Method 204) are assumed to have a capture efficiency of 100 percent. Measured emissions divided by the capture efficiency provides the emission rate.</p>
<p>(11) each process unit subject to a compliance option in tables 1A and 1B to this subpart or used in calculation of an emissions average under §63.2240(c)</p>	<p>establish the site-specific operating requirements (including the parameter limits or THC concentration limits) in table 2 to this subpart</p>	<p>data from the parameter monitoring system or THC CEMS and the applicable performance test method (s).</p>

[71 FR 8373, Feb. 16, 2006]

**Table 5 to Subpart DDDD of Part 63—Performance Testing and Initial Compliance Demonstrations for the Compliance Options and Operating Requirements**

	<p><b>For the following</b></p>	
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For each . . .	compliance options and operating requirements . . .	You have demonstrated initial compliance if . . .
(1) Process unit listed in Table 1A to this subpart	Meet the production-based compliance options listed in Table 1A to this subpart	The average total HAP emissions measured using the methods in Table 4 to this subpart over the 3-hour performance test are no greater than the compliance option in Table 1A to this subpart; AND you have a record of the operating requirement (s) listed in Table 2 to this subpart for the process unit over the performance test during which emissions did not exceed the compliance option value.
(2) Process unit listed in Table 1B to this subpart	Reduce emissions of total HAP, measured as THC, by 90 percent	Total HAP emissions, measured using the methods in Table 4 to this subpart over the 3-hour performance test, are reduced by at least 90 percent, as calculated using the procedures in §63.2262; AND you have a record of the operating requirement(s) listed in Table 2 to this subpart for the process unit over the performance test during which emissions were reduced by at least 90 percent.
(3) Process unit listed in Table 1B to this subpart	Limit emissions of total HAP, measured as THC, to 20 ppmvd	The average total HAP emissions, measured using the methods in Table 4 to this subpart over the 3-hour performance test, do not exceed 20 ppmvd; AND you have a record of the operating requirement (s) listed in Table 2 to this subpart for the process unit over the performance test during which emissions did not exceed 20 ppmvd.
(4) Process unit listed in Table 1B to this subpart	Reduce methanol or formaldehyde emissions by 90 percent	The methanol or formaldehyde emissions measured using the methods in Table 4 to this subpart over the 3-hour performance test, are reduced by at least 90 percent, as calculated using the procedures in §63.2262; AND you have a record of the operating requirement(s) listed in Table 2 to this subpart for the process unit over the performance test during which emissions were reduced by at least 90 percent.

<p>(5) Process unit listed in Table 1B to this subpart</p>	<p>Limit methanol or formaldehyde emissions to less than or equal to 1 ppmvd (if uncontrolled emissions are greater than or equal to 10 ppmvd)</p>	<p>The average methanol or formaldehyde emissions, measured using the methods in Table 4 to this subpart over the 3-hour performance test, do not exceed 1 ppmvd; AND you have a record of the operating requirement(s) listed in Table 2 to this subpart for the process unit over the performance test during which emissions did not exceed 1 ppmvd. If the process unit is a reconstituted wood product press or a reconstituted wood product board cooler, your capture device either meets the EPA Method 204 criteria for a PTE or achieves a capture efficiency of greater than or equal to 95 percent.</p>
<p>(6) Reconstituted wood product press at a new or existing affected source, or reconstituted wood product board cooler at a new affected source</p>	<p>Compliance options in Tables 1A and 1B to this subpart or the emissions averaging compliance option in §63.2240(c)</p>	<p>You submit the results of capture efficiency verification using the methods in Table 4 to this subpart with your Notification of Compliance Status.</p>
<p>(7) Process unit listed in Table 1B to this subpart controlled by routing exhaust to a combustion unit</p>	<p>Compliance options in Table 1B to this subpart or the emissions averaging compliance option in §63.2240(c)</p>	<p>You submit with your Notification of Compliance Status documentation showing that the process exhausts controlled enter into the flame zone of your combustion unit.</p>
<p>(8) Process unit listed in Table 1B to this subpart using a wet control device as the sole means of reducing HAP emissions</p>	<p>Compliance options in Table 1B to this subpart or the emissions averaging compliance option in §63.2240(c)</p>	<p>You submit with your Notification of Compliance Status your plan to address how organic HAP captured in the wastewater from the wet control device is contained or destroyed to minimize re-release to the atmosphere.</p>

Table 6 to Subpart DDDD of Part 63—Initial Compliance Demonstrations for Work Practice Requirements

For each . . .	For the following work practice requirements . .	You have demonstrated initial compliance if . . .

(1) Dry rotary dryer	Process furnish with an inlet moisture content less than or equal to 30 percent (by weight, dry basis) AND operate with an inlet dryer temperature of less than or equal to 600 °F	You meet the work practice requirement AND you submit a signed statement with the Notification of Compliance Status that the dryer meets the criteria of a "dry rotary dryer" AND you have a record of the inlet moisture content and inlet dryer temperature (as required in §63.2263).
(2) Hardwood veneer dryer	Process less than 30 volume percent softwood species	You meet the work practice requirement AND you submit a signed statement with the Notification of Compliance Status that the dryer meets the criteria of a "hardwood veneer dryer" AND you have a record of the percentage of softwoods processed in the dryer (as required in §63.2264).
(3) Softwood veneer dryer	Minimize fugitive emissions from the dryer doors and the green end	You meet the work practice requirement AND you submit with the Notification of Compliance Status a copy of your plan for minimizing fugitive emissions from the veneer dryer heated zones (as required in §63.2265).
(4) Veneer redryers	Process veneer with an inlet moisture content of less than or equal to 25 percent (by weight, dry basis)	You meet the work practice requirement AND you submit a signed statement with the Notification of Compliance Status that the dryer operates only as a redryer AND you have a record of the veneer inlet moisture content of the veneer processed in the redryer (as required in §63.2266).
(5) Group 1 miscellaneous coating operations	Use non-HAP coatings as defined in §63.2292	You meet the work practice requirement AND you submit a signed statement with the Notification of Compliance Status that you are using non-HAP coatings AND you have a record showing that you are using non-HAP coatings.

**Table 7 to Subpart DDDD of Part 63—Continuous Compliance With the Compliance Options and Operating Requirements**

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For . . .	For the following compliance options and operating requirements . . .	You must demonstrate continuous compliance by . . .
(1) Each process unit listed in Table 1B to this subpart or used in calculation of an emissions average under §63.2240(c)	Compliance options in Table 1B to this subpart or the emissions averaging compliance option in §63.2240(c) and the operating requirements in Table 2 to this subpart based on monitoring of operating parameters	Collecting and recording the operating parameter monitoring system data listed in Table 2 to this subpart for the process unit according to §63.2269(a) through (b) and §63.2270; AND reducing the operating parameter monitoring system data to the specified averages in units of the applicable requirement according to calculations in §63.2270; AND maintaining the average operating parameter at or above the minimum, at or below the maximum, or within the range (whichever applies) established according to §63.2262.
(2) Each process unit listed in Tables 1A and 1B to this subpart or used in calculation of an emissions average under §63.2240(c)	Compliance options in Tables 1A and 1B to this subpart or the emissions averaging compliance option in §63.2240(c) and the operating requirements in Table 2 of this subpart based on THC CEMS data	Collecting and recording the THC monitoring data listed in Table 2 to this subpart for the process unit according to §63.2269(d); AND reducing the CEMS data to 3-hour block averages according to calculations in §63.2269(d); AND maintaining the 3-hour block average THC concentration in the exhaust gases less than or equal to the THC concentration established according to §63.2262.
(3) Each process unit using a biofilter	Compliance options in Tables 1B to this subpart or the emissions averaging compliance option in §63.2240(c)	Conducting a repeat performance test using the applicable method (s) specified in Table 4 to this subpart within 2 years following the previous performance test and within 180 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.
(4) Each process unit using a catalytic oxidizer	Compliance options in Table 1B to this subpart or the emissions averaging compliance option in §63.2240(c)	Checking the activity level of a representative sample of the catalyst at least every 12 months and taking any necessary corrective action to ensure that the



		catalyst is performing within its design range.
(5) Each process unit listed in Table 1A to this subpart, or each process unit without a control device used in calculation of an emissions averaging debit under §63.2240 (c)	Compliance options in Table 1A to this subpart or the emissions averaging compliance option in §63.2240(c) and the operating requirements in Table 2 to this subpart based on monitoring of process unit controlling operating parameters	Collecting and recording on a daily basis process unit controlling operating parameter data; AND maintaining the operating parameter at or above the minimum, at or below the maximum, or within the range (whichever applies) established according to §63.2262.
(6) Each Process unit listed in Table 1B to this subpart using a wet control device as the sole means of reducing HAP emissions	Compliance options in Table 1B to this subpart or the emissions averaging compliance option in §63.2240(c)	Implementing your plan to address how organic HAP captured in the wastewater from the wet control device is contained or destroyed to minimize re-release to the atmosphere.

Table 8 to Subpart DDDD of Part 63—Continuous Compliance With the Work Practice Requirements

For . . .	For the following work practice requirements . . .	You must demonstrate continuous compliance by . . .
(1) Dry rotary dryer	Process furnish with an inlet moisture content less than or equal to 30 percent (by weight, dry basis) AND operate with an inlet dryer temperature of less than or equal to 600 °F	Maintaining the 24-hour block average inlet furnish moisture content at less than or equal to 30 percent (by weight, dry basis) AND maintaining the 24-hour block average inlet dryer temperature at less than or equal to 600 °F; AND keeping records of the inlet temperature of furnish moisture content and inlet dryer temperature.
(2) Hardwood veneer dryer	Process less than 30 volume percent softwood species	Maintaining the volume percent softwood species processed below 30 percent AND keeping records of the volume percent softwood species processed.
(3) Softwood veneer dryer	Minimize fugitive emissions from the dryer doors and the green end	Following (and documenting that you are following) your plan for minimizing fugitive emissions.

(4) Veneer redryers	Process veneer with an inlet moisture content of less than or equal to 25 percent (by weight, dry basis)	Maintaining the 24-hour block average inlet moisture content of the veneer processed at or below of less than or 25 percent AND keeping records of the inlet moisture content of the veneer processed.
(5) Group 1 miscellaneous coating operations	Use non-HAP coatings as defined in §63.2292	Continuing to use non-HAP coatings AND keeping records showing that you are using non-HAP coatings.

Table 9 to Subpart DDDD of Part 63—Requirements for Reports

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
(1) Compliance report	The information in §63.2281(c) through (g)	Semiannually according to the requirements in §63.2281(b).
(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 SSMP	(i) Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	(ii) 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.

Table 10 to Subpart DDDD of Part 63—Applicability of General Provisions to Subpart DDDD

Citation	Subject	Brief description	Applies to subpart DDDD
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for	Yes.

		part 63 standards	
§63.4	Prohibited Activities	Prohibited activities; compliance date; circumvention, fragmentation	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§63.6(a)	Applicability	GP apply unless compliance extension; GP apply to area sources that become major	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.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources that Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes.
§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 section 112(f) standards, comply within 90 days of effective date unless compliance extension	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 ( e.g., 3 years)	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; operation and maintenance requirements	Yes.

		independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)	Requirement for SSM and SSMP; content of SSMP	Yes.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)–(9)	Opacity/Visible Emission (VE) Standards	Requirements for opacity and visible emission standards	NA.
§63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(i)(15)	[Reserved]		
§63.6(i)(16)	Compliance Extension	Compliance extension and Administrator's authority	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes.
§63.7(a)(1)–(2)	Performance Test Dates	Dates for conducting initial performance testing and other compliance demonstrations; must conduct 180 days after first subject to rule	Yes.
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Rescheduling	If have to reschedule performance test, must notify Administrator as soon as practicable	Yes.
§63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date	Yes.

		Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§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.
§63.7(e) (2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e) (3)	Test Run Duration	Must have three test runs for at least the time specified in the relevant standard; compliance is based on arithmetic mean of three runs; specifies conditions when data from an additional test run can be used	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method	Yes.
§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; keep data for 5 years	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a) (1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a) (2)	Performance Specifications	Performance specifications in appendix B of part 60 apply	Yes.
§63.8(a) (3)	[Reserved]		
§63.8(a) (4)	Monitoring with Flares	Requirements for flares in §63.11 apply	NA.

§63.8(b) (1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	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.
§63.8(c) (1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with and good air pollution control practices	Yes.
§63.8(c) (1)(i)	Operation and Maintenance of CMS	Must maintain and operate CMS in accordance with §63.6(e)(1)	Yes.
§63.8(c) (1)(ii)	Spare Parts for CMS	Must maintain spare parts for routine CMS repairs	Yes.
§63.8(c) (1)(iii)	SSMP for CMS	Must develop and implement SSMP for CMS	Yes.
§63.8(c) (2)–(3)	Monitoring System Installation	Must install to get representative emission of parameter measurements; must verify operational status before or at performance test	Yes.
§63.8(c) (4)	Continuous Monitoring System (CMS) Requirements	CMS must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of operation for each successive 15-minute period	Yes.

§63.8(c) (5)	Continuous Opacity Monitoring System (COMS) Minimum Procedures	COMS minimum procedures	NA.
§63.8(c) (6)–(8)	CMS Requirements	Zero and high-level calibration check requirements; out-of-control periods	Yes.
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years. Keep old versions for 5 years after revisions	Yes.
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes.
§63.8(f) (1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.
§63.8(f) (6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that can't be used in average; rounding of data	Yes.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b) (1)–(2)	Initial Notifications	Submit notification 120 days after effective date; contents of notification	Yes.
§63.9(b) (3)	[Reserved]		
§63.9(b) (4)–(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; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed	Yes.

		best available control technology/lowest achievable emission rate	
§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.
§63.9(e)	Notification of Performance Test	Notify EPA Administrator 60 days prior	Yes.
§63.9(f)	Notification of Visible Emissions/Opacity Test	Notify EPA Administrator 30 days prior	No.
§63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation; notification using COMS data; notification that exceeded criterion for relative accuracy	Yes.
§63.9(h)(1)–(6)	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.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General Requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)–(iv)	Records Related to Startup, Shutdown, and Malfunction	Occurrence of each of operation (process equipment); occurrence of each malfunction of air pollution equipment; maintenance on air pollution control equipment; actions during startup, shutdown, and malfunction	Yes.



§63.10 (b)(2)(vi) and (x)– (xi)	CMS Records	Malfunctions, inoperative, out-of-control	Yes.
§63.10 (b)(2) (vii)–(ix)	Records	Measurements to demonstrate compliance with compliance options and operating requirements; performance test, performance evaluation, and visible emission observation results; measurements to determine conditions of performance tests and performance evaluations	Yes.
§63.10 (b)(2) (xii)	Records	Records when under waiver	Yes.
§63.10 (b)(2) (xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10 (b)(2) (xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes.
§63.10 (b)(3)	Records	Applicability determinations	Yes.
§63.10 (c)(1)– (6), (9)– (15)	Records	Additional records for CMS	Yes.
§63.10 (c)(7)– (8)	Records	Records of excess emissions and parameter monitoring exceedances for CMS	No.
§63.10 (d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10 (d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10 (d)(3)	Reporting Opacity or VE Observations	What to report and when	NA.
§63.10 (d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10 (d)(5)	Startup, Shutdown, and Malfunction Reports	Contents and submission	Yes.
§63.10 (e)(1)– (2)	Additional CMS Reports	Must report results for each CEM on a unit; written copy of performance evaluation; 3	Yes.

		copies of COMS performance evaluation	
§63.10 (e)(3)	Reports	Excess emission reports	No.
§63.10 (e)(4)	Reporting COMS data	Must submit COMS data with performance test data	NA.
§63.10 (f)	Waiver for Recordkeeping/Reporting	Procedures for EPA Administrator to waive	Yes.
§63.11	Flares	Requirements for flares	NA.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

**Appendix A to Subpart DDDD of Part 63—Alternative Procedure To Determine Capture Efficiency From Enclosures Around Hot Presses in the Plywood and Composite Wood Products Industry Using Sulfur Hexafluoride Tracer Gas**

1.0 Scope and Application

This procedure has been developed specifically for the rule for the plywood and composite wood products (PCWP) industry and is used to determine the capture efficiency of a partial hot press enclosure in that industry. This procedure is applicable for the determination of capture efficiency for enclosures around hot presses and is an alternative to the construction of temporary total enclosures (TTE). Sulfur hexafluoride (SF<sub>6</sub>) is used as a tracer gas (other tracer gases may be used if approved by the EPA Administrator). This gas is not indigenous to the ambient atmosphere and is nonreactive.

This procedure uses infrared spectrometry (IR) as the analytical technique. When the infrared spectrometer used is a Fourier-Transform Infrared spectrometer (FTIR), an alternate instrument calibration procedure may be used; the alternate calibration procedure is the calibration transfer standard (CTS) procedure of EPA Method 320 (appendix A to 40 CFR part 63). Other analytical techniques which are capable of equivalent Method Performance (Section 13.0) also may be used. Specifically, gas chromatography with electron capture detection (GC/ECD) is an applicable technique for analysis of SF<sub>6</sub>.

2.0 Summary of Method

A constant mass flow rate of SF<sub>6</sub> tracer gas is released through manifolds at multiple locations within the enclosure to mimic the release of hazardous air pollutants during the press process. This test method requires a minimum of three SF<sub>6</sub> injection points (two at the press unloader and one at the press) and provides details about considerations for locating the injection points. A GC/ECD is used to measure the concentration of SF<sub>6</sub> at the inlet duct to the control device (outlet duct from enclosure). Simultaneously, EPA Method 2 (appendix A to 40 CFR part 60) is used to measure the flow rate at the inlet duct to the control device. The concentration and flow rate measurements are used to calculate the mass emission rate of SF<sub>6</sub> at the control device inlet. Through calculation of the mass of SF<sub>6</sub> released through the manifolds and the mass of SF<sub>6</sub> measured at the inlet to the control device, the capture efficiency of the enclosure is calculated.

In addition, optional samples of the ambient air may be taken at locations around the perimeter of the enclosure to quantify the ambient concentration of SF<sub>6</sub> and to identify those areas of the enclosure that

may be performing less efficiently; these samples would be taken using disposable syringes and would be analyzed using a GC/ECD.

Finally, in addition to the requirements specified in this procedure, the data quality objectives (DQO) or lower confidence limit (LCL) criteria specified in appendix A to 40 CFR part 63, subpart KK, Data Quality Objective and Lower Confidence Limit Approaches for Alternative Capture Efficiency Protocols and Test Methods, must also be satisfied. A minimum of three test runs are required for this procedure; however, additional test runs may be required based on the results of the DQO or LCL analysis.

### 3.0 Definitions

3.1 Capture efficiency (CE). The weight per unit time of SF<sub>6</sub> entering the control device divided by the weight per unit time of SF<sub>6</sub> released through manifolds at multiple locations within the enclosure.

3.2 Control device (CD). The equipment used to reduce, by destruction or removal, press exhaust air pollutants prior to discharge to the ambient air.

3.3 Control/destruction efficiency (DE). The volatile organic compound or HAP removal efficiency of the control device.

3.4 Data Quality Objective (DQO) Approach. A statistical procedure to determine the precision of the data from a test series and to qualify the data in the determination of capture efficiency for compliance purposes. If the results of the DQO analysis of the initial three test runs do not satisfy the DQO criterion, the LCL approach can be used or additional test runs must be conducted. If additional test runs are conducted, then the DQO or LCL analysis is conducted using the data from both the initial test runs and all additional test runs.

3.5 Lower Confidence Limit (LCL) Approach. An alternative statistical procedure that can be used to qualify data in the determination of capture efficiency for compliance purposes. If the results of the LCL approach produce a CE that is too low for demonstrating compliance, then additional test runs must be conducted until the LCL or DQO is met. As with the DQO, data from all valid test runs must be used in the calculation.

3.6 Minimum Measurement Level (MML). The minimum tracer gas concentration expected to be measured during the test series. This value is selected by the tester based on the capabilities of the IR spectrometer (or GC/ECD) and the other known or measured parameters of the hot press enclosure to be tested. The selected MML must be above the low-level calibration standard and preferably below the mid-level calibration standard.

3.7 Method 204. The U.S. EPA Method 204, "Criteria For and Verification of a Permanent or Temporary Total Enclosure" (40 CFR part 51, appendix M).

3.8 Method 205. The U.S. EPA Method 205, "Verification of Gas Dilution Systems for Field Instrument Calibrations" (40 CFR part 51, appendix M).

3.9 Method 320. The U.S. EPA Method 320, "Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy" (40 CFR part 63, appendix A).

3.10 Overall capture and control efficiency (CCE). The collection and control/destruction efficiency of both the PPE and CD combined. The CCE is calculated as the product of the CE and DE.

3.11 Partial press enclosure (PPE). The physical barrier that "partially" encloses the press equipment, captures a significant amount of the associated emissions, and transports those emissions to the CD.

3.12 Test series. A minimum of three test runs or, when more than three runs are conducted, all of the test runs conducted.

### 4.0 Interferences

There are no known interferences.

### 5.0 Safety

Sulfur hexafluoride is a colorless, odorless, nonflammable liquefied gas. It is stable and nonreactive and, because it is noncorrosive, most structural materials are compatible with it. The Occupational Safety and Health Administration Permissible Emission Limit-Time Weighted Average (PEL-TWA) and Threshold Limit Value-Time Weighted Average (TLV-TWA) concentrations are 1,000 parts per million. Sulfur hexafluoride is an asphyxiant. Exposure to an oxygen-deficient atmosphere (less than 19.5 percent oxygen) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness, and death. Exposure to atmospheres containing less than 12 percent oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help themselves. Contact with liquid or cold vapor may cause frostbite. Avoid breathing sulfur hexafluoride gas. Self-contained breathing apparatus may be required by rescue workers. Sulfur hexafluoride is not listed as a carcinogen or a potential carcinogen.

## 6.0 Equipment and Supplies

This method requires equipment and supplies for: (a) the injection of tracer gas into the enclosure, (b) the measurement of the tracer gas concentration in the exhaust gas entering the control device, and (c) the measurement of the volumetric flow rate of the exhaust gas entering the control device. In addition, the requisite equipment needed for EPA Methods 1–4 in appendix A to 40 CFR part 60 will be required. Equipment and supplies for optional ambient air sampling are discussed in Section 8.6.

### 6.1 Tracer Gas Injection.

6.1.1 Manifolds. This method requires the use of tracer gas supply cylinder(s) along with the appropriate flow control elements. Figure 1 shows a schematic drawing of the injection system showing potential locations for the tracer gas manifolds. Figure 2 shows a schematic drawing of the recommended configuration of the injection manifold. Three tracer gas discharge manifolds are required at a minimum.

6.1.2 Flow Control Meter. Flow control and measurement meter for measuring the quantity of tracer gas injected. A mass flow, volumetric flow, or critical orifice control meter can be used for this method. The meter must be accurate to within  $\pm 5$  percent at the flow rate used. This means that the flow meter must be calibrated against a primary standard for flow measurement at the appropriate flow rate.

### 6.2 Measurement of Tracer Gas Concentration.

6.2.1 Sampling Probes. Use Pyrex or stainless steel sampling probes of sufficient length to reach the traverse points calculated according to EPA Method 1 (appendix A to 40 CFR part 60).

6.2.2 Sampling Line. Use a heated Teflon sampling line to transport the sample to the analytical instrument.

6.2.3 Sampling Pump. Use a sampling pump capable of extracting sufficient sample from the duct and transporting to the analytical instrument.

6.2.4 Sample Conditioning System. Use a particulate filter sufficient to protect the sampling pump and analytical instrument. At the discretion of the tester and depending on the equipment used and the moisture content of the exhaust gas, it may be necessary to further condition the sample by removing moisture using a condenser.

6.2.5 Analytical Instrument. Use one of the following analytical instruments.

6.2.5.1 Spectrometer. Use an infrared spectrometer designed to measure  $SF_6$  tracer gas and capable of meeting or exceeding the specifications of this procedure. An FTIR meeting the specifications of Method 320 in appendix A to 40 CFR part 63 may be used.

6.2.5.2 GC/ECD. Use a GC/ECD designed to measure  $SF_6$  tracer gas and capable of meeting or exceeding the specifications of this procedure.

6.2.6 Recorder. At a minimum, use a recorder with linear strip chart. An automated data acquisition system (DAS) is recommended.

6.3 Exhaust Gas Flow Rate Measurement. Use equipment specified for EPA Methods 2, 3, and 4 in appendix A to 40 CFR part 60 for measuring flow rate of exhaust gas at the inlet to the control device.

## 7.0 Reagents and Standards

7.1 Tracer Gas. Use SF<sub>6</sub> as the tracer gas. The manufacturer of the SF<sub>6</sub> tracer gas should provide a recommended shelf life for the tracer gas cylinder over which the concentration does not change more than ±2 percent from the certified value. A gas mixture of SF<sub>6</sub> diluted with nitrogen should be used; based on experience and calculations, pure SF<sub>6</sub> gas is not necessary to conduct tracer gas testing. Select a concentration and flow rate that is appropriate for the analytical instrument's detection limit, the MML, and the exhaust gas flow rate from the enclosure (see section 8.1.1). You may use a tracer gas other than SF<sub>6</sub> with the prior approval of the EPA Administrator. If you use an approved tracer gas other than SF<sub>6</sub>, all references to SF<sub>6</sub> in this protocol instead refer to the approved tracer gas.

7.2 Calibration Gases. The SF<sub>6</sub> calibration gases required will be dependent on the selected MML and the appropriate span selected for the test. Commercial cylinder gases certified by the manufacturer to be accurate to within 1 percent of the certified label value are preferable, although cylinder gases certified by the manufacturer to 2 percent accuracy are allowed. Additionally, the manufacturer of the SF<sub>6</sub> calibration gases should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ±2 percent from the certified value. Another option allowed by this method is for the tester to obtain high concentration certified cylinder gases and then use a dilution system meeting the requirements of EPA Method 205, 40 CFR part 51, appendix M, to make multi-level calibration gas standards. Low-level, mid-level, and high-level calibration gases will be required. The MML must be above the low-level standard, the high-level standard must be no more than four times the low-level standard, and the mid-level standard must be approximately halfway between the high- and low-level standards. See section 12.1 for an example calculation of this procedure.

Note: If using an FTIR as the analytical instrument, the tester has the option of following the CTS procedures of Method 320 in appendix A to 40 CFR part 63; the calibration standards (and procedures) specified in Method 320 may be used in lieu of the calibration standards and procedures in this protocol.

7.2.1 Zero Gas. High purity nitrogen.

7.2.2 Low-Level Calibration Gas. An SF<sub>6</sub> calibration gas in nitrogen with a concentration equivalent to 20 to 30 percent of the applicable span value.

7.2.3 Mid-Level Calibration Gas. An SF<sub>6</sub> calibration gas in nitrogen with a concentration equivalent to 45 to 55 percent of the applicable span value.

7.2.4 High-Level Calibration Gas. An SF<sub>6</sub> calibration gas in nitrogen with a concentration equivalent to 80 to 90 percent of the applicable span value.

## 8.0 Sample Collection, Preservation, Storage, and Transport

### 8.1 Test Design.

#### 8.1.1 Determination of Minimum Tracer Gas Flow Rate.

8.1.1.1 Determine (via design calculations or measurements) the approximate flow rate of the exhaust gas through the enclosure, actual cubic feet per minute (acfm).

8.1.1.2 Calculate the minimum tracer gas injection rate necessary to assure a detectable SF<sub>6</sub> concentration at the exhaust gas measurement point (see section 12.1 for calculation).

8.1.1.3 Select a flow meter for the injection system with an operating range appropriate for the injection rate selected.

#### 8.1.2 Determination of the Approximate Time to Reach Equilibrium

8.1.2.1 Determine the volume of the enclosure.

8.1.2.2 Calculate the air changes per minute of the enclosure by dividing the approximate exhaust flow rate (8.1.1.1 above) by the enclosed volume (8.1.2.1 above).

8.1.2.3 Calculate the time at which the tracer concentration in the enclosure will achieve approximate equilibrium. Divide 3 by the air changes per minute (8.1.2.2 above) to establish this time. This is the approximate length of time for the system to come to equilibrium. Concentration equilibrium occurs when the tracer concentration in the enclosure stops changing as a function of time for a constant tracer release rate. Because the press is continuously cycling, equilibrium may be exhibited by a repeating, but stable, cyclic pattern rather than a single constant concentration value. Assure sufficient tracer gas is available to allow the system to come to equilibrium, and to sample for a minimum of 20 minutes and repeat the procedure for a minimum of three test runs. Additional test runs may be required based on the results of the DQO and LCL analyses described in 40 CFR part 63, subpart KK, appendix A.

8.1.3 Location of Injection Points. This method requires a minimum of three tracer gas injection points. The injection points should be located within leak prone, volatile organic compound/hazardous air pollutant (VOC/HAP) producing areas around the press, or horizontally within 12 inches of the defined equipment. One potential configuration of the injection points is depicted in Figure 1. The effect of wind, exfiltration through the building envelope, and air flowing through open building doors should be considered when locating tracer gas injection points within the enclosure. The injection points should also be located at a vertical elevation equal to the VOC/HAP generating zones. The injection points should not be located beneath obstructions that would prevent a natural dispersion of the gas. Document the selected injection points in a drawing(s).

8.1.4 Location of Flow Measurement and Tracer Sampling. Accurate CD inlet gas flow rate measurements are critical to the success of this procedure. Select a measurement location meeting the criteria of EPA Method 1 (40 CFR part 60, appendix A), Sampling and Velocity Traverses for Stationary Sources. Also, when selecting the measurement location, consider whether stratification of the tracer gas is likely at the location (e.g., do not select a location immediately after a point of air in-leakage to the duct).

8.2 Tracer Gas Release. Release the tracer gas at a calculated flow rate (see section 12.1 for calculation) through a minimum of three injection manifolds located as described above in 8.1.3. The tracer gas delivery lines must be routed into the enclosure and attached to the manifolds without violating the integrity of the enclosure.

### 8.3 Pretest Measurements.

8.3.1 Location of Sampling Point(s). If stratification is not suspected at the measurement location, select a single sample point located at the centroid of the CD inlet duct or at a point no closer to the CD inlet duct walls than 1 meter. If stratification is suspected, establish a "measurement line" that passes through the centroidal area and in the direction of any expected stratification. Locate three traverse points at 16.7, 50.0 and 83.3 percent of the measurement line and sample from each of these three points during each run, or follow the procedure in section 8.3.2 to verify whether stratification does or does not exist.

8.3.2 Stratification Verification. The presence or absence of stratification can be verified by using the following procedure. While the facility is operating normally, initiate tracer gas release into the enclosure. For rectangular ducts, locate at least nine sample points in the cross section such that the sample points are the centroids of similarly-shaped, equal area divisions of the cross section. Measure the tracer gas concentration at each point. Calculate the mean value for all sample points. For circular ducts, conduct a 12-point traverse (i.e., six points on each of the two perpendicular diameters) locating the sample points as described in 40 CFR part 60, appendix A, Method 1. Perform the measurements and calculations as described above. Determine if the mean pollutant concentration is more than 10 percent different from any single point. If so, the cross section is considered to be stratified, and the tester may not use a single sample point location, but must use the three traverse points at 16.7, 50.0, and 83.3 percent of the entire measurement line. Other traverse points may be selected, provided that they can be shown to the satisfaction of the Administrator to provide a representative sample over the stack or duct cross section.

8.4 CD Inlet Gas Flow Rate Measurements. The procedures of EPA Methods 1-4 (40 CFR part 60, appendix A) are used to determine the CD inlet gas flow rate. Molecular weight (Method 3) and moisture (Method 4) determinations are only required once for each test series. However, if the test series is not completed within 24 hours, then the molecular weight and moisture measurements should be repeated daily. As a minimum, velocity measurements are conducted according to the procedures of Methods 1 and 2 before and after each test run, as close to the start and end of the run as practicable. A velocity measurement between two runs satisfies both the criterion of "after" the run just completed and "before" the run to be initiated. Accurate exhaust gas flow rate measurements are critical to the success of this

procedure. If significant temporal variations of flow rate are anticipated during the test run under normal process operating conditions, take appropriate steps to accurately measure the flow rate during the test. Examples of steps that might be taken include: (1) conducting additional velocity traverses during the test run; or (2) continuously monitoring a single point of average velocity during the run and using these data, in conjunction with the pre- and post-test traverses, to calculate an average velocity for the test run.

### 8.5 Tracer Gas Measurement Procedure.

8.5.1 Calibration Error Test. Immediately prior to the emission test (within 2 hours of the start of the test), introduce zero gas and high-level calibration gas at the calibration valve assembly. Zero and calibrate the analyzer according to the manufacturer's procedures using, respectively, nitrogen and the calibration gases. Calculate the predicted response for the low-level and mid-level gases based on a linear response line between the zero and high-level response. Then introduce the low-level and mid-level calibration gases successively to the measurement system. Record the analyzer responses for the low-level and mid-level calibration gases and determine the differences between the measurement system responses and the predicted responses using the equation in section 12.3. These differences must be less than 5 percent of the respective calibration gas value. If not, the measurement system must be replaced or repaired prior to testing. No adjustments to the measurement system shall be conducted after the calibration and before the drift determination (section 8.5.4). If adjustments are necessary before the completion of the test series, perform the drift checks prior to the required adjustments and repeat the calibration following the adjustments. If multiple electronic ranges are to be used, each additional range must be checked with a mid-level calibration gas to verify the multiplication factor.

Note: If using an FTIR for the analytical instrument, you may choose to follow the pretest preparation, evaluation, and calibration procedures of Method 320 (section 8.0) (40 CFR part 63, appendix A) in lieu of the above procedure.

8.5.2 Response Time Test. Conduct this test once prior to each test series. Introduce zero gas into the measurement system at the calibration valve assembly. When the system output has stabilized, switch quickly to the high-level calibration gas. Record the time from the concentration change to the measurement system response equivalent to 95 percent of the step change. Repeat the test three times and average the results.

8.5.3 SF<sub>6</sub> Measurement. Sampling of the enclosure exhaust gas at the inlet to the CD should begin at the onset of tracer gas release. If necessary, adjust the tracer gas injection rate such that the measured tracer gas concentration at the CD inlet is within the spectrometer's calibration range (*i.e.*, between the MML and the span value). Once the tracer gas concentration reaches equilibrium, the SF<sub>6</sub> concentration should be measured using the infrared spectrometer continuously for at least 20 minutes per run. Continuously record (*i.e.*, record at least once per minute) the concentration. Conduct at least three test runs. On the recording chart, in the data acquisition system, or in a log book, make a note of periods of process interruption or cyclic operation such as the cycles of the hot press operation. Table 1 to this appendix summarizes the physical measurements required for the enclosure testing.

Note: If a GC/ECD is used as the analytical instrument, a continuous record (at least once per minute) likely will not be possible; make a minimum of five injections during each test run. Also, the minimum test run duration criterion of 20 minutes applies.

8.5.4 Drift Determination. Immediately following the completion of the test run, reintroduce the zero and mid-level calibration gases, one at a time, to the measurement system at the calibration valve assembly. (Make no adjustments to the measurement system until both the zero and calibration drift checks are made.) Record the analyzer responses for the zero and mid-level calibration gases and determine the difference between the instrument responses for each gas prior to and after the emission test run using the equation in section 12.4. If the drift values exceed the specified limits (section 13), invalidate the test results preceding the check and repeat the test following corrections to the measurement system. Alternatively, recalibrate the test measurement system as in section 8.5.1 and report the results using both sets of calibration data (*i.e.*, data determined prior to the test period and data determined following the test period). Note: If using an FTIR for the analytical instrument, you may choose to follow the post-test calibration procedures of Method 320 in appendix A to 40 CFR part 63 (section 8.11.2) in lieu of the above procedures.

8.6 Ambient Air Sampling (Optional). Sampling the ambient air surrounding the enclosure is optional. However, taking these samples during the capture efficiency testing will identify those areas of the enclosure that may be performing less efficiently.





## 11.0 Analytical Procedures

The sample collection and analysis are concurrent for this method (see section 8.0).

## 12.0 Calculations and Data Analysis

12.1 Estimate MML and Span. The MML is the minimum measurement level. The selection of this level is at the discretion of the tester. However, the MML must be higher than the low-level calibration standard, and the tester must be able to measure at this level with a precision of  $\leq 10$  percent. As an example, select the MML as 10 times the instrument's published detection limit. The detection limit of one instrument is 0.01 parts per million by volume (ppmv). Therefore, the MML would be 0.10 ppmv. Select the low-level calibration standard as 0.08 ppmv. The high-level standard would be four times the low-level standard or 0.32 ppmv. A reasonable mid-level standard would then be 0.20 ppmv (halfway between the low-level standard and the high-level standard). Finally, the span value would be approximately 0.40 ppmv (the high-level value is 80 percent of the span). In this example, the following MML, calibration standards, and span values would apply.

MML = 0.10 ppmv

Low-level standard = 0.08 ppmv

Mid-level standard = 0.20 ppmv

High-level standard = 0.32 ppmv

Span value = 0.40 ppmv

12.2 Estimate Tracer Gas Injection Rate for the Given Span. To estimate the minimum and maximum tracer gas injection rate, assume a worst case capture efficiency of 80 percent, and calculate the tracer gas flow rate based on known or measured parameters. To estimate the minimum tracer gas injection rate, assume that the MML concentration (10 times the IR detection limit in this example) is desired at the measurement location. The following equation can be used to estimate the minimum tracer gas injection rate:

$$((QT-MIN \times 0.8)/Q_E) \times (C_T + 100) \times 10^6 = MML$$

$$QT-MIN = 1.25 \times MML \times (Q_E/C_T) \times 10^{-4}$$

Where:

QT-MIN = minimum volumetric flow rate of tracer gas injected, standard cubic feet per minute (scfm);

$Q_E$  = volumetric flow rate of exhaust gas, scfm;

$C_T$  = Tracer gas ( $SF_6$ ) concentration in gas blend, percent by volume;

MML = minimum measured level, ppmv =  $10 \times IR_{DL}$  (for this example);

$IR_{DL}$  = IR detection limit, ppmv.

Standard conditions: 20°C, 760 millimeters of mercury (mm Hg).

To estimate the maximum tracer gas injection rate, assume that the span value is desired at the measurement location. The following equation can be used to estimate the maximum tracer gas injection rate:

$$((QT-MAX \times 0.8)/Q_E) \times (C_T + 100) \times 10^6 = \text{span value}$$

$$QT-MAX = 1.25 \times \text{span value} \times (Q_E/C_T) \times 10^{-4}$$

Where:

QT-MAX= maximum volumetric flow rate of tracer gas injected, scfm;

Span value = instrument span value, ppmv.

The following example illustrates this calculation procedure:

Find the range of volumetric flow rate of tracer gas to be injected when the following parameters are known:

$Q_E = 60,000$  scfm (typical exhaust gas flow rate from an enclosure);

$C_T = 2$  percent SF<sub>6</sub> in nitrogen;

$IR_{DL} = 0.01$  ppmv (per manufacturer's specifications);

$MML = 10 \times IR_{DL} = 0.10$  ppmv;

Span value = 0.40 ppmv;

$Q_T = ?$

Minimum tracer gas volumetric flow rate:

$$QT-MIN = 1.25 \times MML \times (Q_E/C_T) \times 10^{-4}$$

$$QT-MIN = 1.25 \times 0.10 \times (60,000/2) \times 10^{-4} = 0.375 \text{ scfm}$$

Maximum tracer gas volumetric flow rate:

$$QT-MAX = 1.25 \times \text{span value} \times (Q_E/C_T) \times 10^{-4}$$

$$QT-MAX = 1.25 \times 0.40 \times (60,000/2) \times 10^{-4} = 1.5 \text{ scfm}$$

In this example, the estimated total volumetric flow rate of the two percent SF<sub>6</sub> tracer gas injected through the manifolds in the enclosure lies between 0.375 and 1.5 scfm.

12.3 Calibration Error. Calculate the calibration error for the low-level and mid-level calibration gases using the following equation:

$$\text{Err} = \frac{|C_{std} - C_{meas}|}{C_{std}} \times 100$$

Where:

Err = calibration error, percent;

$C_{std}$  = low-level or mid-level calibration gas value, ppmv;

$C_{meas}$  = measured response to low-level or mid-level concentration gas, ppmv.

12.4 Calibration Drift. Calculate the calibration drift for the zero and low-level calibration gases using the following equation:

$$D = \frac{C_{\text{initial}} - C_{\text{final}}}{C_{\text{span}}} \times 100$$

Where:

D = calibration drift, percent;

$C_{\text{initial}}$  = low-level or mid-level calibration gas value measured before test run, ppmv;

$C_{\text{final}}$  = low-level or mid-level calibration gas value measured after test run, ppmv;

$C_{\text{span}}$  = span value, ppmv.

12.5 Calculate Capture Efficiency. The equation to calculate enclosure capture efficiency is provided below:

$$CE = \frac{SF6\text{-}CD + SF6\text{-}INJ}{SF6\text{-}INJ} \times 100$$

Where:

CE = capture efficiency;

SF6-CD = mass of SF<sub>6</sub> measured at the inlet to the CD;

SF6-INJ = mass of SF<sub>6</sub> injected from the tracer source into the enclosure.

Calculate the CE for each of the initial three test runs. Then follow the procedures outlined in section 12.6 to calculate the overall capture efficiency.

12.6 Calculate Overall Capture Efficiency. After calculating the capture efficiency for each of the initial three test runs, follow the procedures in 40 CFR part 63, subpart KK, appendix A, to determine if the results of the testing can be used in determining compliance with the requirements of the rule. There are two methods that can be used: the DQO and LCL methods. The DQO method is described in section 3 of 40 CFR part 63, subpart KK, appendix A, and provides a measure of the precision of the capture efficiency testing conducted. Section 3 of 40 CFR part 63, subpart KK, appendix A, provides an example calculation using results from a facility. If the DQO criteria are met using the first set of three test runs, then the facility can use the average capture efficiency of these test results to determine the capture efficiency of the enclosure. If the DQO criteria are not met, then the facility can conduct another set of three runs and run the DQO analysis again using the results from the six runs OR the facility can elect to use the LCL approach.

The LCL method is described in section 4 of 40 CFR part 63, subpart KK, appendix A, and provides sources that may be performing much better than their regulatory requirement, a screening option by which they can demonstrate compliance. The LCL approach compares the 80 percent lower confidence limit for the mean measured CE value to the applicable regulatory requirement. If the LCL capture efficiency is higher than the applicable limit, then the facility is in initial compliance and would use the LCL capture efficiency as the capture efficiency to determine compliance. If the LCL capture efficiency is lower than the applicable limit, then the facility must perform additional test runs and re-run the DQO or LCL analysis.

### 13.0 Method Performance

#### 13.1 Measurement System Performance Specifications.

13.1.1 Zero Drift. Less than ±3 percent of the span value.

13.1.2 Calibration Drift. Less than ±3 percent of the span value.

13.1.3 Calibration Error. Less than ±5 percent of the calibration gas value.

13.2 Flow Measurement Specifications. The mass flow, volumetric flow, or critical orifice control meter used should have an accuracy of greater than  $\pm 5$  percent at the flow rate used.

13.3 Calibration and Tracer Gas Specifications. The manufacturer of the calibration and tracer gases should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than  $\pm 2$  percent from the certified value.

14.0 Pollution Prevention [Reserved]

15.0 Waste Management [Reserved]

16.0 References

1. 40 CFR part 60, appendix A, EPA Method 1—Sample and velocity traverses for stationary sources.
2. 40 CFR part 60, appendix A, EPA Method 2—Determination of stack gas velocity and volumetric flow rate.
3. 40 CFR part 60, appendix A, EPA Method 3—Gas analysis for the determination of dry molecular weight.
4. 40 CFR part 60, appendix A, EPA Method 4—Determination of moisture content in stack gases.
5. SEMI F15–93 Test Method for Enclosures Using Sulfur Hexafluoride Tracer Gas and Gas Chromatography.
6. Memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, to EPA Regional Directors, Revised Capture Efficiency Guidance for Control of Volatile Organic Compound Emissions, February 7, 1995. (That memorandum contains an attached technical document from Candace Sorrell, Emission Monitoring and Analysis Division, "Guidelines for Determining Capture Efficiency," January 9, 1994).
7. Technical Systems Audit of Testing at Plant "C," EPA-454/R-00-26, May 2000.
8. Material Safety Data Sheet for SF<sub>6</sub> Air Products and Chemicals, Inc. Website: [www3.airproducts.com](http://www3.airproducts.com). October 2001.

17.0 Tables, Diagrams, Flowcharts, and Validation Data

**Table 1 to Appendix A—Summary of Critical Physical Measurements for Enclosure Testing**

<b>Measurement</b>	<b>Measurement instrumentation</b>	<b>Measurement frequency</b>	<b>Measurement site</b>
Tracer gas injection rate	Mass flow meter, volumetric flow meter or critical orifice	Continuous	Injection manifolds (cylinder gas).
Tracer gas concentration at control device inlet	Infrared Spectrometer or GC/ECD	Continuous (at least one reading per minute) for a minimum of 20 minutes	Inlet duct to the control device (outlet duct of enclosure).
Volumetric air flow rate	EPA Methods 1, 2, 3, 4 (40 CFR part 60, appendix A) • Velocity sensor	Each test run for velocity (minimum); Daily for moisture and molecular	Inlet duct to the control device (outlet duct of enclosure).

	(Manometer/Pitot tube) • Thermocouple	weight	
	• Midget Impinger sampler		
	• Orsat or Fyrite		

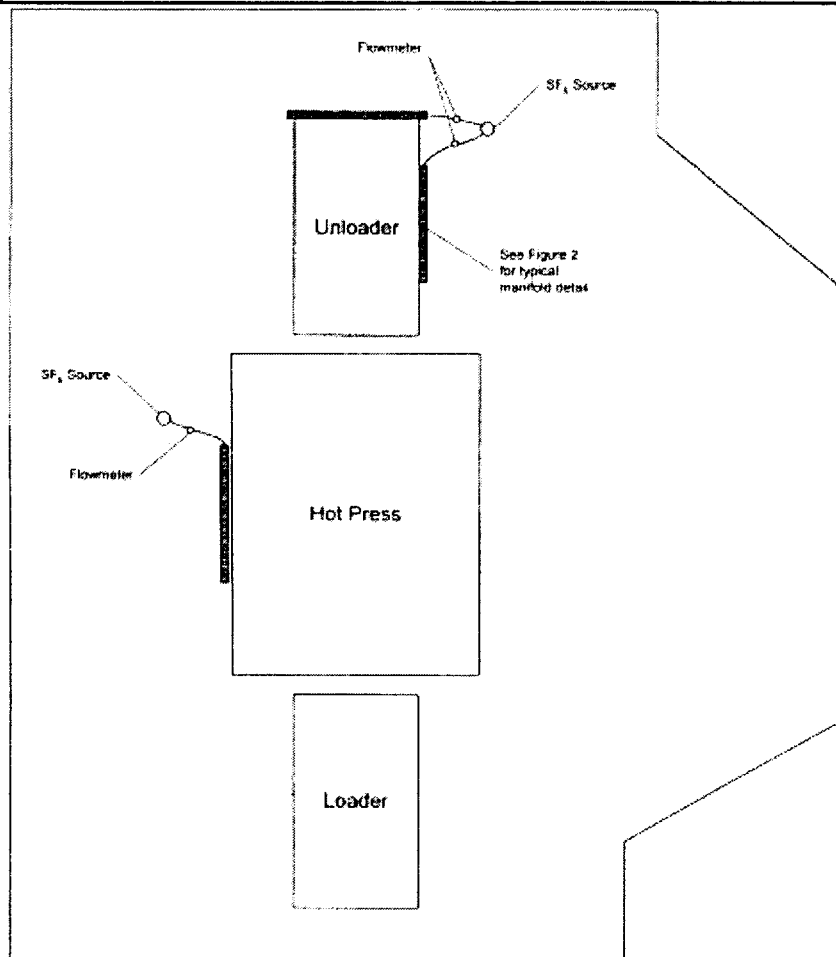
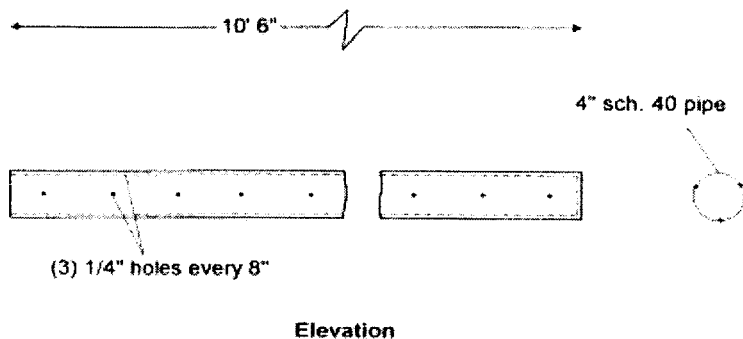


Figure 1. Plan view schematic of hot press and enclosure showing SF<sub>6</sub> manifold locations.

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**Elevation**

Figure 2. Schematic detail for manifold system for SF<sub>6</sub> injection.

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[69 FR 46011, July 30, 2004, as amended at 71 FR 8375, Feb. 16, 2006]

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## Subpart QQQQ—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products

Source: 68 FR 31760, May 28, 2003, unless otherwise noted.

### What This Subpart Covers

#### § 63.4680 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for wood building products surface coating sources. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

#### § 63.4681 Am I subject to this subpart?

(a) Except as provided in paragraphs (c) and (d) of this section, the source category to which this subpart applies is surface coating of wood building products, which means the application of coatings using, for example, roll coaters or curtain coaters in the finishing or laminating of any wood building product that contains more than 50 percent by weight wood or wood fiber excluding the weight of any glass components, and is used in the construction, either interior or exterior, of a residential, commercial, or institutional building. The wood building products source category includes the subcategories listed in paragraphs (a)(1) through (5) of this section.

(1) *Doors, windows, and miscellaneous.* The doors, windows, and miscellaneous subcategory includes doors, windows, finished doorskins, and door and window components such as millwork, moulding, or trim, and other miscellaneous wood building products including, but not limited to, all moulding and trim, shingles, and shutters.

(2) *Flooring.* The flooring subcategory includes solid wood flooring, engineered wood flooring, and wood laminate flooring.

(3) *Interior wall paneling and tileboard.* The interior wall paneling and tileboard subcategory includes interior wall paneling products. Tileboard is a premium interior wall paneling product.

(4) *Other interior panels.* The other interior panel subcategory includes panels that are sold for uses other than interior wall paneling, such as coated particleboard, hardboard, and perforated panels.

(5) *Exterior siding and primed doorskins.* The exterior siding and primed doorskins subcategory includes lap or panel siding, trimboard, and primed doorskins. Doorskins that are coated with more than primer are included in the doors, windows, and miscellaneous subcategory.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.4682, that uses 4,170 liters (1,100 gallons) per year, or more, of coatings in the source category defined in paragraph (a) of this section and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(c) This subpart does not apply to surface coating and other operations that meet the criteria of paragraphs (c)(1) through (5) of this section.

(1) Surface coating in the processes identified in paragraphs (c)(1)(i) through (xi) of this section that are part of plywood and composite wood product manufacturing and would be subject to subpart DDDD of this part when promulgated:

(i) Edge seals applied to a reconstituted wood product or plywood.

(ii) Anti-skid coatings applied to reconstituted wood products.

(iii) Primers applied to waferboard or oriented strand board (OSB) siding at the site of manufacture of the

waferboard or OSB siding.

(iv) Surface coating that occurs during the manufacture of fiberboard, including application of clay slurry, titanium dioxide, or asphalt coatings to fiberboard.

(v) Painting of company logo information on plywood or reconstituted wood products.

(vi) Application of trademarks and grade stamp to reconstituted wood products or plywood.

(vii) Application of nail lines to reconstituted wood products.

(viii) Synthetic patches, wood patches, and wood putty applied to plywood.

(ix) Application of concrete forming and other drying or tempering oils to wood building products.

(x) Veneer composing.

(xi) Application of shelving edge fillers to reconstituted wood products.

(2) Surface coating of wood furniture subject to subpart JJ of this part, including finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components. The surface coating of millwork and trim associated with cabinet manufacturing is also subject to subpart JJ of this part and not to this subpart.

(3) Surface coating that occurs during the manufacture of prefabricated homes and mobile/modular homes.

(4) Surface coating that occurs at research or laboratory facilities; janitorial, building, and facility construction or maintenance operations; or hobby shops that are operated for personal rather than for commercial purposes. The source category also does not include non-commercial coating operations or coating applications using handheld nonrefillable aerosol containers.

(5) Wood treatment or fire retardant operations located at wood building products sources that involve impregnating the wood product with the wood treatment chemicals or fire retardant by using a retort or other pressure vessel.

(d) If you have an affected source with surface coating operations subject to the requirements of another subpart of this part that account for at least 95 percent of the total (annual) coating usage for the affected source, you may demonstrate compliance with the requirements, including all applicable emission limit(s), for that subpart for the entire affected source.

### **§ 63.4682 What parts of my plant does this subpart cover?**

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of wood building products:

(1) All coating operations as defined in §63.4781;

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if its construction commenced after June 21, 2002, and the construction is of a completely new wood building products surface coating source where previously



no wood building products surface coating source had existed.

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

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

### **§ 63.4683 When do I have to comply with this subpart?**

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§63.4740, 63.4750, and 63.4760

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before May 28, 2003, the compliance date is May 28, 2003.

(2) If the initial startup of your new or reconstructed affected source occurs after May 28, 2003, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after May 28, 2003.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or May 28, 2003, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after May 28, 2003, whichever is later.

(d) You must meet the notification requirements in §63.4710 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

### **Emission Limitations**

#### **§ 63.4690 What emission limits must I meet?**

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere to no more than the applicable emission limit(s) in Table 1 to this subpart, determined according to the requirements in §§63.4741, 63.4751, or 63.4761.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the applicable emission limit(s) in Table 2 to this subpart, determined according to the requirements in §63.4741, §63.4751, or §63.4761.

(c) If the affected source applies coatings to products that are in different subcategories as described in §63.4681(a), then you must demonstrate initial and continuous compliance by selecting one of the approaches described in paragraphs (c)(1) and (2) of this section.

(1) Conduct separate compliance demonstrations for each applicable subcategory emission limit and reflect these separate determinations in notifications, reports, and records required by §§63.4710, 63.4720, and 63.4730, respectively.

(2) Demonstrate compliance with the most stringent of the applicable subcategory emission limits.

**§ 63.4691 What are my options for meeting the emission limits?**

You must include all coatings, thinners, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.4690. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation or to multiple coating operations as a group or to the entire affected source. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.4730(c), and you must report it in the next semiannual compliance report required in §63.4720.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit(s) in §63.4690, and that each thinner and each cleaning material used contains no organic HAP. You must meet all the requirements of §§63.4740, 63.4741, and 63.4742 to demonstrate compliance with the emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit(s) in §63.4690, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§63.4750, 63.4751, and 63.4752 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation(s) and the emission reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit(s) in §63.4690, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in §63.4692, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4761(j), and that you meet the work practice standards required in §63.4693. You must meet all the requirements of §§63.4760 through 63.4768 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

**§ 63.4692 What operating limits must I meet?**

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.4761(j), you must meet the operating limits specified in Table 3 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in §63.4767. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 3 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

**§ 63.4693 What work practice standards must I meet?**

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s); or you must meet an alternative standard as provided in paragraph (d) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b) (1) through (5) of this section are implemented. You must make the plan available upon request for inspection by the Administrator.

- (1) All organic-HAP coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.
  - (2) Spills of organic-HAP coatings, thinners, cleaning materials, and waste materials must be minimized.
  - (3) Organic-HAP coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
  - (4) Mixing vessels that contain organic-HAP coatings and other materials must be closed except when adding to, removing, or mixing the contents.
  - (5) Emissions of organic-HAP must be minimized during cleaning of storage, mixing, and conveying equipment.
- (c) If your affected source has an existing documented plan that incorporates steps taken to minimize emissions from the sources specified in paragraphs (b)(1) through (5) of this section, then your existing plan can be used to meet the requirement for a work practice plan as specified in paragraph (b) of this section.
- (d) As provided in §63.6(g), we, the U.S. Environmental Protection Agency (U.S. EPA), may choose to grant you permission to use an alternative to the work practice standards in this section.

#### General Compliance Requirements

#### **§ 63.4700 What are my general requirements for complying with this subpart?**

- (a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a) (1) and (2) of this section.
- (1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in §63.4691(a) and (b), must be in compliance with the applicable emission limit in §63.4690 at all times.
- (2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.4691(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.
- (i) The coating operation(s) must be in compliance with the applicable emission limit in §63.4690 at all times, except during periods of startup, shutdown, and malfunction (SSM).
- (ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.4692 at all times, except during periods of SSM, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4761(j).
- (iii) The coating operation(s) must be in compliance with the work practice standards in §63.4698 at all times.
- (b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in §63.6(e)(1)(i).
- (c) If your affected source uses an emission capture system and add-on control device, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date specified for your affected source in §63.4683 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in §63.4760. This requirement does not apply to a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4761(j) in lieu of conducting performance tests.
- (d) If your affected source uses an emission capture system and add-on control device, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6

(e)(3). The SSMP must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

[68 FR 31760, May 28, 2003, as amended at 71 FR 20465, Apr. 20, 2006]

### **§ 63.4701 What parts of the General Provisions apply to me?**

Table 4 to this subpart indicates which parts of the General Provisions in §§63.1 through 63.15 apply to you.

Notifications, Reports, and Records

### **§ 63.4710 What notifications must I submit?**

(a) *General.* You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial Notification.* You must submit the Initial Notification required by §63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after May 28, 2003, whichever is later. For an existing affected source, you must submit the Initial Notification no later than 120 days after May 28, 2003.

(c) *Notification of Compliance Status.* You must submit the Notification of Compliance Status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.4740, §63.4750, or §63.4760 that applies to your affected source. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (9) of this section and in §63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.4740, §63.4750, or §63.4760 that applies to your affected source.

(4) Identification of the compliance option or options specified in §63.4691 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in §63.4690, include all the calculations you used to determine the grams organic HAP emitted per liter of coating solids used (pounds (lb) organic HAP emitted per gallon of coating solids used). You do not need to submit information provided by the materials suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data can include a copy of the information provided by the supplier or manufacturer of the example coating or material or a summary of the results of testing conducted according to §63.4741(a), (b), or (c). You do not need to submit copies of any test reports.

- (i) Mass fraction of organic HAP for one coating, for one thinner, and for one cleaning material.
  - (ii) Volume fraction of coating solids for one coating.
  - (iii) Density for one coating, one thinner, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.
  - (iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of §63.4751.
- (8) The calculation of grams organic HAP emitted per liter coating solids used (lb organic HAP emitted per gallon coating solids used) for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.
- (i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of §63.4741.
  - (ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate, using Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.4751.
  - (iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.4751; the calculation of the total volume of coating solids used each month, using Equation 2 of §63.4751; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equations 1, 1A through 1D, 2, 3, and 3A through 3C of §63.4761, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of §63.4761; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of §63.4761.
- (9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4761(j).
- (i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.
  - (ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.
  - (iii) A list of each emission capture system and add-on control device operating limits and a summary of the data used to calculate those limits.
  - (iv) A statement of whether or not you developed and implemented the work practice plan required by §63.4693.

### § 63.4720 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must prepare and submit each semiannual compliance report according to the dates

specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in §63.4740, §63.4750, or §63.4760 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* 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 semiannual compliance report pursuant to this section 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 semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (v) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in §63.4691 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§63.4691(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§63.4690, 63.4692, and 63.4693 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in §63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) *Deviations: compliant material option.* If you used the compliant material option, and there was a

deviation from the applicable emission limit in §63.4690, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

- (i) Identification of each coating used that deviated from the emission limit, each thinner and cleaning material used that contained organic HAP, and the dates and time periods each was used.
- (ii) The calculation of the organic HAP content (using Equation 2 of §63.4741) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (e.g., information provided by coating suppliers or manufacturers, or test reports).
- (iii) The determination of mass fraction of organic HAP for each coating, thinner, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (e.g., information provided by material suppliers or manufacturers, or test reports).
- (iv) A statement of the cause of each deviation.

(6) *Deviations: emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in §63.4690, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

- (i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.4690.
- (ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must provide the calculations for Equations 1, 1A through 1C, 2, and 3 in §63.4751; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4751(e)(4). You do not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports).
- (iii) A statement of the cause of each deviation.

(7) *Deviations: emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (iv) of this section. This includes periods of SSM during which deviations occurred.

- (i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.4690.
- (ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.4751; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4751(e)(4); the calculation of the total volume of coating solids used each month, using Equation 2 of §63.4751; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of §63.4761, and Equations 2, 3, and 3A through 3C of §63.4761, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of §63.4761; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of §63.4761. You do not need to submit the background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports).
- (iii) The date and time that each malfunction started and stopped.
- (iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 3 to this subpart, date and time period of any bypass of the add-on control device, and whether each deviation occurred during a period of SSM or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 3 to this subpart, each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) A breakdown of the total duration of the deviations from the operating limits in Table 3 to this subpart and bypasses of the add-on control device during the semiannual reporting period by identifying deviations due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in §63.10(d)(2).

(c) *SSM reports.* If you used the emission rate with add-on controls option and you had an SSM during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in §63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate SSM report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in §63.10(d)(5)(ii). The letter must contain the information specified in §63.10(d)(5)(ii).

### § 63.4730 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner, and cleaning material and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction



of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations at which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of §63.4741.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1, 1A through 1C, and 2 of §63.4751; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4751(e)(4); the calculation of the total volume of coating solids used each month, using Equation 2 of §63.4751; and the calculation of each 12-month organic HAP emission rate, using Equation 3 of §63.4751.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.4751; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4751(e)(4).

(ii) The calculation of the total volume of coating solids used each month, using Equation 2 of §63.4751.

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of §63.4761, and Equations 2, 3, and 3A through 3C of §63.4761, as applicable.

(iv) The calculation of the total mass of organic HAP emissions each month, using Equation 4 of §63.4761.

(v) The calculation of each 12-month organic HAP emission rate, using Equation 5 of §63.4761.

(d) A record of the name and volume of each coating, thinner, and cleaning material used during each compliance period.

(e) A record of the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each compliance period.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) A record of the density for each coating used during each compliance period; and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each thinner and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of §63.4751 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.4751(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.4751; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.4751.

(3) The methodology used in accordance with §63.4751(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSD facility each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of SSM.

(2) The records in §63.6(e)(3)(iii) through (v) related to SSM.

(3) The records required to show continuous compliance with each operating limit specified in Table 3 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in §63.4765(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§63.4764 and 63.4765(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in §63.4765(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.4766.

(i) Records of each add-on control device performance test conducted according to §§63.4764 and 63.4766.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.4767 and to document compliance with the operating limits as specified in Table 3 to this subpart.

(8) A record of the work practice plan required by §63.4693, and documentation that you are implementing the plan on a continuous basis.

### § 63.4731 In what form and for 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). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(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 may keep the records off-site for the remaining 3 years.

## Compliance Requirements for the Compliant Material Option

### § 63.4740 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in §63.4741. The initial compliance period begins on the applicable compliance date specified in §63.4683 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.4741 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in §63.4690, and that you used no thinners or cleaning materials that contained organic HAP.

### § 63.4741 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limit in §63.4690 and must use no thinner or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.4692 and 63.4693, respectively. To demonstrate initial compliance with the emission limitations using the compliant material option, you must meet all the requirements of this section for the coating operation or group of coating operations using this option. Use the procedures in this section on each coating, thinner, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the mass of organic HAP in coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation(s) for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option. If the mass fraction of organic HAP of a coating equals zero, determined according to paragraph (a) of this section, and you use the compliant material option, you are not required to comply with paragraphs (b) and (c) of this section for that coating.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test. If these values cannot be determined using Method 311, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for

other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point ( e.g., 0.379178412 truncates to 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point ( e.g., 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. (Note: Method 24 is not appropriate for those coatings with a water content that would result in an effective detection limit greater than the applicable emission limit.)

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

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 5 or Table 6 to this subpart. If you use the tables, you must use the values in Table 5 for all solvent blends that match Table 5 entries, and you may only use Table 6 if the solvent blends in the materials you use do not match any of the solvent blends in Table 5 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (40 CFR part 63, appendix A) test indicate higher values than those listed on Table 5 or Table 6 to this subpart, the Method 311 results will take precedence.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by one of the methods specified in paragraph (b)(1), (2), or (3) of this section.

(1) *ASTM Method D2697-86 (Reapproved 1998) or D6093-97.* You may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see §63.14), or D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see §63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. If these values cannot be determined using these methods, the owner operator may submit an alternative technique for determining their values for approval by the Administrator.

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

(3) *Calculation of volume fraction of coating solids.* If the volume fraction of coating solids cannot be determined using the options in paragraphs (b)(1) and (2) of this section, you must determine it using Equation 1 of this section:

$$V_s = 1 - \left( \frac{m_{\text{volatiles}}}{D_{\text{wg}}} \right) \quad (\text{Eq. 1})$$

Where:

$V_s$  = Volume fraction of coating solids, liters coating solids per liter coating.

$m_{\text{volatiles}}$  = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

$D_{\text{avg}}$  = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–90 information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and other information sources, the test results will take precedence.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475–90 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–90 test results and the supplier's or manufacturer's information, the test results will take precedence.

(d) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, grams organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 2 of this section:

$$H_c = \frac{(D_c)(W_c)}{V_s} \quad (\text{Eq. 2})$$

Where:

$H_c$  = Organic HAP content of the coating, grams organic HAP per liter coating solids.

$D_c$  = Density of coating, grams coating per liter coating, determined according to paragraph (c) of this section.

$W_c$  = Mass fraction of organic HAP in the coating, grams organic HAP per gram coating, determined according to paragraph (a) of this section.

$V_s$  = Volume fraction of coating solids, liter coating solids per liter coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The organic HAP content for each coating used during the initial compliance period, determined using Equation 2 of this section, must be less than or equal to the applicable emission limit in §63.4690; and each thinner and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§63.4730 and 63.4731. As part of the Notification of Compliance Status required in §63.4710, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.4690, and you used no thinners or cleaning materials that contained organic HAP, determined according to paragraph (a) of this section.

### § 63.4742 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content determined using Equation 2 of §63.4741 exceeds the applicable emission limit in §63.4690; and use no thinner or cleaning material that contains organic HAP, determined according to §63.4741(a). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4740 is the end of a compliance period consisting

of that month and the preceding 11 months.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§63.4710(c)(6) and 63.4720(a)(5).

(c) As part of each semiannual compliance report required by §63.4720, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the emission limitations in §63.4690, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coating for which the organic HAP content exceeded the applicable emission limit in §63.4690, and you used no thinner or cleaning material that contained organic HAP, determined according to §63.4741(a).

(d) You must maintain records as specified in §§63.4730 and 63.4731.

### **Compliance Requirements for the Emission Rate Without Add-On Controls Option**

#### **§ 63.4750 By what date must I conduct the initial compliance demonstration?**

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4751. The initial compliance period begins on the applicable compliance date specified in §63.4683 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the calculations according to §63.4751 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4690.

#### **§ 63.4751 How do I demonstrate initial compliance with the emission limitations?**

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in §63.4690. Any coating operation for which you use the emission rate without add-on controls option is not required to meet the operating limits or work practice standards required in §§63.4692 and 63.4693, respectively. You must meet all the requirements of this section to demonstrate initial compliance with the applicable emission limit in §63.4690 for the coating operation(s). When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate without add-on controls option.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each month according to the requirements in §63.4741(a).

(b) *Determine the volume fraction of coating solids for each coating.* Determine the volume fraction of coating solids for each coating used during each month according to the requirements in §63.4741(b).

(c) *Determine the density of each material.* Determine the density of each coating, thinner, and cleaning material used during each month from test results using ASTM Method D1475-90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-90 test results and such other information sources, the test results will take precedence.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner, and cleaning material used during each month by measurement or usage records.

(e) Calculate the mass of organic HAP emissions. The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate it using Equation 1 of this section.

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

Where:

$H_e$  = Total mass of organic HAP emissions during the month, grams.

A = Total mass of organic HAP in the coatings used during the month, grams, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners used during the month, grams, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the month, grams, as calculated in Equation 1C of this section.

$R_w$  = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, grams, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to  $R_w$  if you do not wish to use this allowance.)

(1) Calculate the mass of organic HAP in the coatings used during the month, using Equation 1A of this section:

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

Where:

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

$\text{Vol}_{c,i}$  = Total volume of coating, i, used during the month, liters.

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

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

m = Number of different coatings used during the month.

(2) Calculate the mass of organic HAP in the thinners used during the month, using Equation 1B of this section:

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

Where:

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

$\text{Vol}_{t,j}$  = Total volume of thinner, j, used during the month, liters.

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

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

n = Number of different thinners used during the month.

(3) Calculate the mass of organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^p (\text{Vol}_{s,k}) (D_{s,k}) (W_{s,k}) \quad (\text{Eq. 1C})$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, grams.

$\text{Vol}_{s,k}$  = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$  = Density of cleaning material, k, grams per liter.

$W_{s,k}$  = Mass fraction of organic HAP in cleaning material, k, grams organic HAP per gram material.

p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine it according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may include in the determination only waste materials that are generated by coating operations for which you use Equation 1 of this section and that will be treated or disposed of by a facility regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You may use any reasonable methodology to determine the amount of waste materials and the total mass of organic HAP they contain, and you must document your methodology as required in §63.4730 (h). To the extent that waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) Calculate the total volume of coating solids used. Determine the total volume of coating solids used which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$V_s = \sum_{i=1}^m (\text{Vol}_{c,i}) (V_{si}) \quad (\text{Eq. 2})$$

Where:



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

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

$V_{s,i}$  = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to §63.4741(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12} V_{st}} \quad (\text{Eq. 3})$$

Where:

$H_{yr}$  = Organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids.

$H_e$  = Total mass of organic HAP emissions, grams, from all materials used during month, y, as calculated by Equation 1 of this section.

$V_{st}$  = Total volume of coating solids used during month, y, liters, as calculated by Equation 2 of this section.

y = Identifier for months.

(h) *Compliance demonstration.* The organic HAP emission rate for the initial 12-month compliance period, calculated using Equation 3 of this section, must be less than or equal to the applicable emission limit in §63.4690. You must keep all records as required by §§63.4730 and 63.4731. As part of the Notification of Compliance Status required by §63.4710, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.4690, determined according to this section.

### § 63.4752 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, calculated using Equation 3 of §63.4751, must be less than or equal to the applicable emission limit in §63.4690. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4750 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.4751(a) through(g) on a monthly basis using data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.4690, this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§63.4710(c)(6) and 63.4720(a)(6).

(c) As part of each semiannual compliance report required by §63.4720, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP

emission rate for each compliance period was less than or equal to the applicable emission limit in §63.4690, determined according to §63.4751(a) through (g).

(d) You must maintain records as specified in §§63.4730 and 63.4731.

### Compliance Requirements for the Emission Rate With Add-On Controls Option

#### § 63.4760 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.4683. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4761(j), you must conduct a performance test of each capture system and add-on control device according to §§63.4764, 63.4765, and 63.4766, and establish the operating limits required by §63.4692 no later than 180 days after the applicable compliance date specified in §63.4683. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4761(j), you must initiate the first material balance no later than 180 days after the applicable compliance date specified in §63.4683.

(2) You must develop and begin implementing the work practice plan required by §63.4693 no later than the compliance date specified in §63.4683.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4761. The initial compliance period begins on the applicable compliance date specified in §63.4683 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.4764, 63.4765, and 63.4766; results of liquid-liquid material balances conducted according to §63.4761(j); calculations according to §63.4761 and supporting documentation showing that during the initial compliance period, the organic HAP emission rate was equal to or less than the emission limit in §63.4690(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4768; and documentation of whether you developed and implemented the work practice plan required by §63.4693.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.4692 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in §63.4761(j).

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.4683. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4761(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.4764, 63.4765, and 63.4766 and establish the operating limits required by §63.4692 no later than the applicable compliance date specified in §63.4683. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4761(j), you must initiate the first material balance no later than the compliance date specified in §63.4683.

(2) You must develop and begin implementing the work practice plan required by §63.4693 no later than the compliance date specified in §63.4683.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4761. The initial compliance period begins on the applicable compliance date specified in §63.4683 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.4764, 63.4765, and 63.4766; results of liquid-liquid material balances conducted according to §63.4761(j); calculations according to §63.4761 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in §63.4690(b); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4768; and documentation of whether you developed and implemented the work practice plan required by §63.4693.

### § 63.4761 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§63.4690, 63.4692, and 63.4693. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners, or cleaning materials that have been reclaimed and reused in the coating operation(s) for which you use the emission rate with add-on controls option.

(b) *Compliance with operating limits.* Except as provided in §63.4760(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of §63.4761(j), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.4692, using the procedures specified in §§63.4767 and 63.4768.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by §63.4693 during the initial compliance period, as specified in §63.4730.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in §63.4690.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in §63.4751(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner, and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of §63.4751, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-*

*liquid material balances.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction, using Equation 1 of this section. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. For any period of time a deviation specified in §63.4763(c) or (d) occurs in the controlled coating operation, including a deviation during a period of SSM, you must assume zero efficiency for the emission capture system and add-on control device. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_c = (A_c + B_c + C_c - H_{unc}) \left( \frac{CE}{100} \times \frac{DRE}{100} \right) \quad (\text{Eq. 1})$$

Where:

$H_c$  = Mass of organic HAP emission reduction for the controlled coating operation during the month, grams.

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

$B_c$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, grams, as calculated in Equation 1B of this section.

$C_c$  = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, grams, as calculated in Equation 1C of this section.

$H_{unc}$  = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in §63.4763(c) and (d) that occurred during the month in the controlled coating operation, grams, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§63.4764 and 63.4765 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§63.4764 and 63.4766 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, grams, using Equation 1A of this section:

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

Where:

$A_c$  = Total mass of organic HAP in the coatings used in the controlled coating operation, grams.

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

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

$W_{c,i}$  = mass fraction of organic HAP in coating, i, grams per gram.

$m$  = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, grams, using Equation 1B of this section:

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

Where:

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

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

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

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

$n$  = Number of different thinners used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, grams, using Equation 1C of this section:

$$C_c = \sum_{k=1}^p (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (\text{Eq. 1C})$$

Where:

$C_c$  = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, grams.

$Vol_{s,k}$  = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$  = Density of cleaning material, k, grams per liter.

$W_{s,k}$  = Mass fraction of organic HAP in cleaning material, k, grams per gram.

$p$  = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners, and cleaning materials used in the controlled coating operation during deviations specified in §63.4763(c) and (d), using Equation 1D of this section:

$$H_{unc} = \sum_{h=1}^q (Vol_h)(D_h)(W_h) \quad (\text{Eq. 1D})$$

Where:

$H_{unc}$  = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during

all deviations specified in §63.4763(c) and (d) that occurred during the month in the controlled coating operation, grams.

$Vol_h$  = Total volume of coating, thinner, or cleaning material, h, used in the controlled coating operation during deviations, liters.

$D_h$  = Density of coating, thinner, or cleaning material, h, grams per liter.

$W_h$  = mass fraction of organic HAP in coating, thinner, or cleaning material, h, grams organic HAP per gram coating.

q = Number of different coatings, thinners, or cleaning materials.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within  $\pm 2.0$  percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, grams, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, grams volatile organic matter per gram coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct.

(4) Determine the density of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, grams per liter, according to §63.4751(c).

(5) Measure the volume of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_v = 100 \times \frac{M_{vr}}{\sum_{i=1}^m (Vol_i)(D_i)(WV_{e,i}) + \sum_{j=1}^n (Vol_j)(D_j)(WV_{t,j}) + \sum_{k=1}^p (Vol_k)(D_k)(WV_{s,k})} \quad (\text{Eq. 2})$$

Where:

$R_v$  = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

$M_{vr}$  = Mass of volatile organic matter recovered by the solvent recovery system during the month, grams.

$Vol_i$  = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

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

$WV_{c,i}$  = Mass fraction of volatile organic matter for coating, i, grams volatile organic matter per gram coating.

$Vol_j$  = Volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

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

$WV_{t,j}$  = Mass fraction of volatile organic matter for thinner, j, grams volatile organic matter per gram thinner.

$Vol_k$  = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_k$  = Density of cleaning material, k, grams per liter.

$WV_{s,k}$  = Mass fraction of volatile organic matter for cleaning material, k, grams volatile organic matter per gram cleaning material.

$m$  = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

$n$  = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

$p$  = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 3 of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR}) \left( \frac{R_v}{100} \right) \quad (\text{Eq. 3})$$

Where:

$H_{CSR}$  = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, grams.

$A_{CSR}$  = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, grams, calculated using Equation 3A of this section.

$B_{CSR}$  = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, grams, calculated using Equation 3B of this section.

$C_{CSR}$  = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, grams, calculated using Equation 3C of this section.

$R_v$  = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, grams, using Equation 3A of this section:

$$A_{CSR} = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 3A})$$

Where:

$A_{CSR}$  = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, grams.

$\text{Vol}_{c,i}$  = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

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

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

$m$  = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, grams, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 3B})$$

Where:

$B_{CSR}$  = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, grams.

$\text{Vol}_{t,j}$  = Total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

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

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

$n$  = Number of different thinners used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, grams, using Equation 3C of this section.

$$C_{CSR} = \sum_{k=1}^p (\text{Vol}_{s,k}) (D_{s,k}) (W_{s,k}) \quad (\text{Eq. 3C})$$



Where:

$C_{CSR}$  = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, grams.

$Vol_{s,k}$  = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$  = Density of cleaning material, k, grams per liter.

$W_{s,k}$  = Mass fraction of organic HAP in cleaning material, k, grams per gram.

$p$  = Number of different cleaning materials used.

(k) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of §63.4751.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, grams, during each month, using Equation 4 of this section.

$$H_{HAP} = H_e - \sum_{i=1}^q (H_{c,i}) - \sum_{j=1}^r (H_{CSR,j}) \quad (\text{Eq. 4})$$

Where:

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

$H_e$  = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners, and cleaning materials used during the month, grams, determined according to paragraph (f) of this section.

$H_{c,i}$  = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, grams, from Equation 1 of this section.

$H_{CSR,j}$  = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, grams, from Equation 3 of this section.

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

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

(m) *Calculate the organic HAP emission rate for the 12-month compliance period.* Determine the organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids used, using Equation 5 of this section:

$$H_{\text{annual}} = \frac{\sum_{y=1}^{12} H_{\text{HAP},y}}{\sum_{y=1}^{12} V_{\text{st},y}} \quad (\text{Eq. 5})$$

Where:

$H_{\text{annual}}$  = Organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids.

$H_{\text{HAP},y}$  = Organic HAP emission rate for month,  $y$ , determined according to Equation 4 of this section.

$V_{\text{st},y}$  = Total volume of coating solids, liters, used during month,  $y$ , from Equation 2 of §63.4751.

$y$  = Identifier for months.

(n) *Compliance demonstration.* To demonstrate initial compliance with the emission limit, the organic HAP emission rate, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit in §63.4690. You must keep all records as required by §§63.4730 and 63.4731. As part of the Notification of Compliance Status required by §63.4710, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.4690, and you achieved the operating limits required by §63.4692 and the work practice standards required by §63.4693.

#### § 63.4762 [Reserved]

#### § 63.4763 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.4690, the organic HAP emission rate for each compliance period, calculated using Equation 5 of §63.4761, must be equal to or less than the applicable emission limit in §63.4690. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4760 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.4761 on a monthly basis using data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.4690, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.4710(c)(6) and 63.4720(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by §63.4692 that applies to you, as specified in Table 3 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 3 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§63.4710(c)(6) and 63.4720(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 3 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. For the purposes of completing the compliance calculations specified in §63.4761(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation, as indicated in Equation 1 of §63.4761.

(d) You must meet the requirements for bypass lines in §63.4768(b) for controlled coating operations for

which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when a controlled coating operation is running, this is a deviation that must be reported as specified in §§63.4710(c)(6) and 63.4720(a)(7). For the purposes of completing the compliance calculations specified in §63.4761(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation, as indicated in Equation 1 of §63.4761.

(e) You must demonstrate continuous compliance with the work practice standards in §63.4693. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by §63.4730(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§63.4710(c)(6) and 63.4720(a)(7).

(f) As part of each semiannual compliance report required in §63.4720, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.4690, and you achieved the operating limits required by §63.4692 and the work practice standards required by §63.4693 during each compliance period.

(g) [Reserved]

(h) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of SSM of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period you identify as an SSM are violations, according to the provisions in §63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§63.4730 and 63.4731.

[68 FR 31760, May 28, 2003, as amended at 71 FR 20466, Apr. 20, 2006]

#### **§ 63.4764 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by §63.4760 according to the requirements in §63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of SSM, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.4765. You must conduct each performance test of an add-on control device according to the requirements in §63.4766.

#### **§ 63.4765 How do I determine the emission capture system efficiency?**

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.4760.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100

percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off and coating, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours in duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners, and cleaning materials used in the coating operation during each capture efficiency test run.

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

Where:

$TVH_{\text{used}}$  = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, grams.

$TVH_i$  = Mass fraction of TVH in coating, thinner, or cleaning material,  $i$ , that is used in the coating operation during the capture efficiency test run, grams TVH per gram material.

$Vol_i$  = Total volume of coating, thinner, or cleaning material,  $i$ , used in the coating operation during the capture efficiency test run, liters.

$D_i$  = Density of coating, thinner, or cleaning material,  $i$ , grams material per liter material.

$n$  = Number of different coatings, thinners, and cleaning materials used in the coating

operation during the capture efficiency test run.

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

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

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

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{\text{used}}$  = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, grams.

$TVH_{\text{uncaptured}}$  = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, grams, determined according to paragraph (c)(4) of this section.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, grams, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C of appendix M to 40 CFR part 51 measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured

in each duct, and the total emissions entering the add-on control device must be determined.

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

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{\text{captured}}$  = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, grams, determined according to paragraph (d)(2) of this section.

$TVH_{\text{uncaptured}}$  = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, grams, determined according to paragraph (d)(3) of this section.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

### **§ 63.4766 How do I determine the add-on control device emission destruction or removal efficiency?**

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.4760. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method

for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]" (incorporated by reference, see §63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer, and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer, and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A of appendix A to 40 CFR part 60 if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12)(41.6)(10^{-6}) \quad (\text{Eq. 1})$$

Where:

$M_f$  = Total gaseous organic emissions mass flow rate, grams per hour (h).

$C_c$  = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

$Q_{sd}$  = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

41.6 = Conversion factor for molar volume, gram-moles per cubic meter ( $\text{mol}/\text{m}^3$ ) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$\text{DRE} = 100 \times \frac{M_{fi} - M_{fo}}{M_{fi}} \quad (\text{Eq. 2})$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

$M_{in}$  = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, grams/h.

$M_{out}$  = total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, grams/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

**§ 63.4767 How do I establish the emission capture system and add-on control device operating limits during the performance test?**

During the performance test required by §63.4760 and described in §§63.4764, 63.4765, and 63.4766, you must establish the operating limits required by §63.4692 according to this section unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.4692.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature difference across the catalyst bed maintained during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer. (Note: For regenerative catalytic oxidizers, the inlet to the catalyst is defined as the general zone between the inlets to the catalyst beds located in the multiple regeneration towers; select either a monitoring location or multiple monitoring locations. If multiple monitoring locations are selected, either establish separate operating limits for each location or calculate an average of the multiple measurements and set a single operating limit.)

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the recommended procedures from the manufacturer, the catalyst supplier, or the catalyst test provider.



(ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendation and conduct a new performance test to determine destruction efficiency according to §63.4766.

(c) *Carbon adsorbers.* If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle, and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(f) *Emission capture system.* For each capture device that is not part of a PTE that meets the criteria of §63.4765(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 3 to this subpart.

(1) During the capture efficiency determination required by §63.4760 and described in §§63.4764 and 63.4765, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

**§ 63.4768 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a) (3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during periods when the control device is not receiving emissions, monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened and there was a deviation from the applicable emission limitation, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.4720.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, you must install a gas temperature monitor in the gas stream immediately before the catalyst bed, and if you established operating limits according to §63.4767(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(i) If you establish operating limits according to §63.4767(b)(1) and (2), then you must install the gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream immediately before and after the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to §63.4767(b)(3) and (4), then you must install a gas temperature monitor upstream of the catalyst bed. The temperature monitor must be in the gas stream immediately before the catalyst bed to measure the temperature.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (vii) of this section for each gas temperature monitoring device.

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

(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

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

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

(v) 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 nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

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

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

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers*. If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) *Concentrators*. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in  $\sigma$  as close to a position that provides a representative measurement of the pressure.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(iv) Check the pressure tap daily.

(v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(vi) Conduct calibration checks anytime the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vii) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(g) *Emission capture systems*. The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (v) of this section.

(i) Locate the pressure sensor(s) in  $\sigma$  as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

- (iii) Check pressure tap pluggage daily.
- (iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.
- (v) Conduct calibration checks anytime the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
- (vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

## Other Requirements and Information

### § 63.4780 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the EPA, has the authority to implement and enforce this subpart. You should contact your 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 EPA Administrator 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 listed in paragraphs (c) (1) through (4) of this section:

- (1) Approval of alternatives to the work practice standards under §63.4693.
- (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 changes to recordkeeping and reporting under §63.1(f) and as defined in §63.90.

### § 63.4781 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

*Add-on control* means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

*Adhesive* means any chemical substance that is applied for the purpose of bonding two surfaces together.

*Block average* is an average of data points collected over any specified, continuous 180-minute block of time (e.g., a 3-hour block could be noon to 3 p.m., with a subsequent total of eight 3-hour blocks within a 24-hour period).

*Capture device* means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

*Capture efficiency* or *capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

*Capture system* means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings or cleaning materials occur, such as fashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

*Cleaning material* means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (e.g., depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spraybooths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

*Coating* means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

*Coating operation* means equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried coating (surface preparation), to apply coating to a substrate (coating application) and to dry or cure the coating after application, or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating or cleaning material is applied and all subsequent points in the affected source where organic HAP emissions from that coating or cleaning material occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup markers, or marking pens is not a coating operation for the purposes of this subpart.

*Coating solids* means the nonvolatile portion of the coating that makes up the dry film.

*Continuous parameter monitoring system (CPMS)* means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

*Controlled coating operation* means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on 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 limit, or 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 limit, or operating limit, or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

*Emission limitation* means an emission limit, operating limit, or work practice standard.

*Enclosure* means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

*Exempt compound* means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

*Finished wood product* means any wood building product to which a protective, decorative, or functional layer has been applied. Materials used include, but are not limited to, paints, stains, sealers, topcoats, basecoats, primers, enamels, inks, and adhesives.

*Laminated wood product* means any wood building product to which a protective, decorative, or functional layer has been bonded with an adhesive. Products that are produced by bonding layers to the substrate as a part of the substrate manufacturing process (prior to pressing) are not considered laminated products under this subpart.

*Manufacturer's formulation data* means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather

than based on testing of the material with the test methods specified in §63.4741. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

*Mass fraction of organic HAP* means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as grams of organic HAP per gram of material.

*Millwork* means lumber that has been remanufactured into a wood building product or component such as door, window, and staircase part(s), or decorative trim.

*Month* means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period

*Organic HAP content* means the mass of organic HAP per volume of coating solids for a coating calculated using Equation 2 of §63.4741. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt.

*Permanent total enclosure (PTE)* means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

*Protective oil* means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

*Research or laboratory facility* means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Startup, initial* means the first time equipment is brought online in a source.

*Surface preparation* means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called "depainting."

*Temporary total enclosure* means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

*Thinner* means an organic solvent that is added to a coating after the coating is received from the supplier.

*Tileboard* means hardboard that meets the specifications for Class I given by the standard ANSI/AHA A135.4-1995 as approved by the American National Standards Institute. The standard specifies requirements and test methods for water absorption, thickness swelling, modulus of rupture, tensile strength, surface finish, dimensions, squareness, edge straightness, and moisture content for five classes of hardboard. Tileboard is also known as Class I hardboard or tempered hardboard.

*Total volatile hydrocarbon (TVH)* means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

*Uncontrolled coating operation* means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

*Volatile organic compound (VOC)* means any compound defined as VOC in 40 CFR 51.100(s).

*Volume fraction of coating solids* means the ratio of the volume of coating solids (also known as volume

of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

*Wastewater* means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

*Wood building product* means any product that contains more than 50 percent by weight wood or wood fiber, excluding the weight of any glass components, and is used in the construction, either interior or exterior, of a residential, commercial, or institutional building.

**Table 1 to Subpart QQQQ of Part 63—Emission Limits for New or Reconstructed Affected Sources**

You must comply with the emission limits that apply to your affected source in the following table as required by §63.4690.

If the affected source applies coating to products in the following subcategory. . .	Then, the organic HAP emission limit for the affected source, in grams HAP/liter solids (lb HAP/gal solids) <sup>1,2</sup> is:
1. Exterior siding and primed doorskins	0 (0.00)
2. Flooring	0 (0.00)
3. Interior wall paneling or tileboard	5 (0.04)
4. Other interior panels	0 (0.00)
5. Doors, windows, and miscellaneous	57 (0.48)

<sup>1</sup>Determined as a rolling 12-month emission rate according to the requirements in §63.4741, §63.4751, or §63.4761, as applicable.

<sup>2</sup>If the affected source applies coatings to products in more than one of the subcategories listed in the table, then you must determine the applicable emission limit according to §63.4690(c).

**Table 2 to Subpart QQQQ of Part 63—Emission Limits for Existing Affected Sources**

You must comply with the emission limits that apply to your affected source in the following table as required by §63.4690.

If the affected source applies coating to products in the following subcategory. . .	Then, the organic HAP emission limit for the affected source, in grams HAP/liter solids (lb HAP/gal solids) <sup>1,2</sup> is:
1. Exterior siding and primed doorskins	7 (0.06)
2. Flooring	93 (0.78)
3. Interior wall paneling or tileboard	183 (1.53)
4. Other interior panels	20 (0.17)
5. Doors, windows, and miscellaneous	231 (1.93)

<sup>1</sup>Determined as a rolling 12-month emission rate according to the requirements in §63.4741, §63.4751, or §63.4761, as applicable.



<sup>2</sup>If the affected source applies coatings to products in more than one of the subcategories listed in the table, then you must determine the applicable emission limit according to §63.4690(c).

**Table 3 to Subpart QQQQ of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option**

If you are required to comply with operating limits by §63.4692, you must comply with the applicable operating limits in the following table:

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.4767(a)	i. Collecting the combustion temperature data according to §63.4768(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature difference measured across the catalyst bed in any 3-hour period must not fall below the limit established according to §63.4767(b); or	i. Collecting the temperature data according to §63.4768(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block temperature difference across the catalyst bed at or above the temperature limit.
	b. Ensure that the inlet temperature of the catalyst bed in any 3-hour period does not fall below the temperature limit established according to §63.4767(b)(2) and develop and implement an inspection and maintenance plan according to §63.4767(b)(3) and (4)	i. Collecting the temperature data according to §63.4768(c), reducing the data to 3-hour block averages, and maintaining the 3-hour average temperature at or above the temperature limit; and ii. Complying with the inspection and maintenance plan developed according to §63.4767(b)(3) and (4).
3. Carbon absorber	a. The total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total	i. Measuring the total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each regeneration cycle

	regeneration desorbing gas mass flow limit established according to §63.4767(c)	according to §63.4768(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to §63.4767(c)	i. Measuring the temperature of the carbon bed, after completing each regeneration and any cooling cycle, according to §63.4768(d); and ii. Operating and carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.4767(d)	i. Collecting the condenser outlet (product side) gas temperature according to §63.4768(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average gas temperature at the outlet at or below the temperature limit.
5. Emission capture system that is a PTE according to §63.4765(a)	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of the air flow; and either the facial velocity of air through all natural draft openings according to §63.4768(g)(1) or the pressure drop across the enclosure according to §63.4768(g)(2); and
		ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.

	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	i. See items 5.a.i and 5.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H <sub>2</sub> O, as established in Method 204 of appendix M to 40 CFR part 51	i. See items 5.a.i and 5.a.ii.
6. Emission capture system that is not a PTE according to §63.4765(a)	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.4767(f)	i. Collecting the gas volumetric flow gas or duct static pressure for each capture device according to §63.4768(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit
7. Concentrators, including zeolite wheels and rotary carbon absorbers	The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.4767(e); and	i. Collecting the temperature data according to §63.4768(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not exceed the limit established according to §63.4767(e)	i. Collecting the pressure drop data according to §63.4768(f); and ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour block average pressure drop at or below at the pressure drop limit.

**Table 4 to Subpart QQQQ of Part 63—Applicability of General Provisions to Subpart QQQQ of Part 63**

You must comply with the applicable General Provisions requirements according to the following table:

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Citation	Subject	Applicable to subpart QQQQ	Explanation
§63.1(a)(1)–(14)	General Applicability	Yes.	
§63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart QQQQ is also specified in §63.4681.
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart QQQQ.
§63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes.	
§63.2	Definitions	Yes	Additional definitions are specified in §63.4781.
§63.3(a)–(c)	Units and Abbreviations	Yes.	
§63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§63.4(b)–(c)	Circumvention/Severability	Yes.	
§63.5(a)	Construction/Reconstruction	Yes.	
§63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources	Yes.	
§63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
§63.5(e)	Approval of Construction/Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review	Yes.	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources	Yes	§63.4683 specifies the compliance dates.
§63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	§63.4683 specifies the compliance dates.
§63.6(e)(1)–(2)	Operation and Maintenance	Yes	

§63.6(e) (3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§63.6(f) (1)	Compliance Except During SSM	Yes	Applies only to sources using an add-on control device to comply with the standard.
§63.6(f) (2)–(3)	Methods for Determining Compliance	Yes	
§63.6(g) (1)–(3)	Use of an Alternative Standard	Yes	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart QQQQ does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i) (1)–(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7(a) (1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.4764, 63.4765, and 63.4766.
§63.7(a) (2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. §63.4760 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a) (2).
§63.7(a) (3)	Performance Tests Required By the Administrator	Yes.	
§63.7 (b)–(e)	Performance Test Requirements—Notification,	Yes	Applies only to performance tests for

	Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test		capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.7(f)	Performance Test Requirements—Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in §63.4768.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart QQQQ does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes.	
§63.8(c)(1)–(3)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.4768.
§63.8(c)(4)	CMSs	No	§63.4768 specifies the requirements for the operation of CMS for capture systems and add-on control devices

			at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart QQQQ does not have opacity for visible emission standards.
§63.8(c)(6)	CMS Requirements	No	§63.4768 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(7)	CMS Out-of-Control Periods	Yes.	
§63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	§63.4720 requires reporting of CMS out-of-control periods.
§63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes.	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)–(5)	Data Reduction	No	§§63.4767 and 63.4768 specify monitoring data reduction.
§63.9(a)–(d)	Notification Requirements	Yes.	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart QQQQ does not have opacity or visible emission standards.
§63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart QQQQ does require the use of continuous emissions monitoring systems.

§63.9(h)	Notification of Compliance Status	Yes	§63.4710 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	
§63.10 (a)	Recordkeeping/Reporting—Applicability and General Information	Yes.	
§63.10 (b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.4730 and 63.4731.
§63.10 (b)(2)(i)–(v)	Recordkeeping Relevant to SSM Periods and CMS	Yes	Requirements for SSM records only apply to add-on control devices used to comply with the standard.
§63.10 (b)(2) (vi)–(xi)		Yes.	
§63.10 (b)(2) (xii)	Records	Yes.	
§63.10 (b)(2) (xiii)		No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.10 (b)(2) (xiv)		Yes.	
§63.10 (b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes.	
§63.10 (c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes.	
§63.10 (c)(7)–(8)		No	The same records are required in §63.4720 (a) (7).
§63.10 (c)(9)–(15)		Yes.	
§63.10 (d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.4720.
§63.10	Report of Performance Test	Yes	Additional



(d)(2)	Results		requirements are specified in §63.4720 (b).
§63.10 (d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart QQQQ does not require opacity or visible emissions observations.
§63.10 (d)(4)	Progress Reports for Sources With Compliance Extensions	Yes.	
§63.10 (d)(5)	SSM Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
§63.10 (e)(1)–(2)	Additional CMS Reports	No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.10 (e)(3)	Excess Emissions/CMS Performance Reports	No	§63.4720(b) specifies the contents of periodic compliance reports.
§63.10 (e)(4)	COMS Data Reports	No	Subpart QQQQ does not specify requirements for opacity or COMS.
§63.10 (f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11	Control Device Requirements/Flares	No	Subpart QQQQ does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes	Test Methods ANSI/ASME PTC 19.10–1981, Part 10, ASTM D2697–86 (Reapproved 1998), and ASTM D6093–97 (incorporated by reference, see §63.14).
§63.15	Availability of Information/Confidentiality	Yes.	

**Table 5 to Subpart QQQQ of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends**

You may use the mass fraction values in the following table for solvent blends for which you do not have

test data or manufacturer's formulation data.

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol <sup>®</sup> solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

**Table 6 to Subpart QQQQ of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups<sup>a</sup>**

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic <sup>b</sup>	0.03	1% xylene, 1% toluene, and 1% ethylbenzene.
Aromatic <sup>c</sup>	0.06	4% xylene, 1% toluene, and 1% ethylbenzene.

<sup>a</sup>Use this table only if the solvent blend does not match any of the solvent blends in Table 5 to this subpart and you only know whether the blend is aliphatic or aromatic.

<sup>b</sup> *E.g.*, Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mxed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

<sup>c</sup> *E.g.*, Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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Subpart ZZZZ--NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES

- §63.6580 What is the purpose of subpart ZZZZ?
- §63.6585 Am I subject to this subpart?
- §63.6590 What parts of my plant does this subpart cover?
- §63.6595 When do I have to comply with this subpart?
- §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?
- §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?
- §63.6602 What emission limitations 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?
- §63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
- §63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?
- §63.6605 What are my general requirements for complying with this subpart?
- §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?
- §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?
- §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?

§63.6615 When must I conduct subsequent performance tests?

§63.6620 What performance tests and other procedures must I use?

§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

§63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

§63.6635 How do I monitor and collect data to demonstrate continuous compliance?

§63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

§63.6645 What notifications must I submit and when?

§63.6650 What reports must I submit and when?

§63.6655 What records must I keep?

§63.6660 In what form and how long must I keep my records?

§63.6665 What parts of the General Provisions apply to me?

§63.6670 Who implements and enforces this subpart?

§63.6675 What definitions apply to this subpart?

Appendix Table 1 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

Appendix Table 1 to Subpart ZZZZ of Part 63 --Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

Appendix Table 2 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

Appendix Table 2 to Subpart ZZZZ of Part 63 -- Operating Limitations for New and Reconstructed 2SLB and Compression Ignition 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 Compression Ignition Stationary RICE >500  
HP, and Existing 4SLB Stationary RICE >500 HP  
Located at an Area Source of HAP Emissions

Appendix

Table 2 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

Appendix

Table 2 to Subpart ZZZZ of Part 63 --Requirements  
for Existing Stationary RICE Located at Area Sources  
of HAP Emissions

Appendix

Table 3 to Subpart ZZZZ of Part 63 --Subsequent  
Performance Tests

Appendix

Table 4 to Subpart ZZZZ of Part 63 --Requirements  
for Performance Tests

Appendix

Table 5 to Subpart ZZZZ of Part 63 --Initial  
Compliance With Emission Limitations and  
Operating Limitations

Appendix

Table 6 to Subpart ZZZZ of Part 63 --Continuous  
Compliance With Emission Limitations, Operating  
Limitations, Work Practices, and Management  
Practices

Appendix

Table 7 to Subpart ZZZZ of Part 63 --Requirements  
for Reports

Appendix

Table 8 to Subpart ZZZZ of Part 63 --Applicability of  
General Provisions to Subpart ZZZZ.

Subpart AAAAA--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR  
POLLUTANTS FOR LIME MANUFACTURING PLANTS

§63.7080

What is the purpose of this subpart?

§63.7081

Am I subject to this subpart?

§63.7082

What parts of my plant does this subpart cover?

§63.7083

When do I have to comply with this subpart?

§63.7090

What emission limitations must I meet?

§63.7100

What are my general requirements for complying  
with this subpart?

§63.7110

By what date must I conduct performance tests and  
other initial compliance demonstrations?

<u>§63.7111</u>	When must I conduct subsequent performance tests?
<u>§63.7112</u>	What performance tests, design evaluations, and other procedures must I use?
<u>§63.7113</u>	What are my monitoring installation, operation, and maintenance requirements?
<u>§63.7114</u>	How do I demonstrate initial compliance with the emission limitations standard?
<u>§63.7120</u>	How do I monitor and collect data to demonstrate continuous compliance?
<u>§63.7121</u>	How do I demonstrate continuous compliance with the emission limitations standard?
<u>§63.7130</u>	What notifications must I submit and when?
<u>§63.7131</u>	What reports must I submit and when?
<u>§63.7132</u>	What records must I keep?
<u>§63.7133</u>	In what form and for how long must I keep my records?
<u>§63.7140</u>	What parts of the General Provisions apply to me?
<u>§63.7141</u>	Who implements and enforces this subpart?
<u>§63.7142</u>	What are the requirements for claiming area source status?
<u>§63.7143</u>	What definitions apply to this subpart?
<u>Appendix</u>	<u>Table 1 to Subpart AAAAA of Part 63 --Emission Limits</u>
<u>Appendix</u>	<u>Table 2 to Subpart AAAAA of Part 63 --Operating Limits</u>
<u>Appendix</u>	<u>Table 3 to Subpart AAAAA of Part 63 --Initial Compliance With Emission Limits</u>
<u>Appendix</u>	<u>Table 4 to Subpart AAAAA of Part 63 --Requirements for Performance Tests</u>
<u>Appendix</u>	<u>Table 5 to Subpart AAAAA of Part 63 --Continuous Compliance With Operating Limits</u>
<u>Appendix</u>	<u>Table 6 to Subpart AAAAA of Part 63 --Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits</u>
<u>Appendix</u>	<u>Table 7 to Subpart AAAAA of Part 63 --Requirements for Reports</u>
<u>Appendix</u>	<u>Table 8 to Subpart AAAAA of Part 63 --Applicability</u>

of General Provisions to Subpart AAAAA

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Subpart BBBBB--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR  
POLLUTANTS FOR SEMICONDUCTOR MANUFACTURING

- §63.7180           What is the purpose of this subpart?
- §63.7181           Am I subject to this subpart?
- §63.7182           What parts of my facility does this subpart cover?
- §63.7183           When do I have to comply with this subpart?
- §63.7184           What emission limitations, operating limits, and work  
practice standards must I meet?
- §63.7185           What are my general requirements for complying  
with this subpart?
- §63.7186           By what date must I conduct performance tests or  
other initial compliance demonstrations?
- §63.7187           What performance tests and other compliance  
procedures must I use?
- §63.7188           What are my monitoring installation, operation, and  
maintenance requirements?
- §63.7189           What applications and notifications must I submit and  
when?
- §63.7190           What reports must I submit and when?
- §63.7191           What records must I keep?
- §63.7192           In what form and how long must I keep my records?
- §63.7193           What parts of the General Provisions apply to me?
- §63.7194           Who implements and enforces this subpart?
- §63.7195           What definitions apply to this subpart?
- Appendix           Table 1 to Subpart BBBBB of Part 63 --Requirements  
for Performance Tests
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Subpart CCCCC--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR  
POLLUTANTS FOR COKE OVENS: PUSHING, QUENCHING, AND BATTERY STACKS

- §63.7280           What is the purpose of this subpart?



- §63.7281 Am I subject to this subpart?
- §63.7282 What parts of my plant does this subpart cover?
- §63.7283 When do I have to comply with this subpart?
- §63.7290 What emission limitations must I meet for capture systems and control devices applied to pushing emissions?
- §63.7291 What work practice standards must I meet for fugitive pushing emissions if I have a by-product coke oven battery with vertical flues?
- §63.7292 What work practice standards must I meet for fugitive pushing emissions if I have a by-product coke oven battery with horizontal flues?
- §63.7293 What work practice standards must I meet for fugitive pushing emissions if I have a non-recovery coke oven battery?
- §63.7294 What work practice standard must I meet for soaking?
- §63.7295 What requirements must I meet for quenching?
- §63.7296 What emission limitations must I meet for battery stacks?
- §63.7300 What are my operation and maintenance requirements?
- §63.7310 What are my general requirements for complying with this subpart?
- §63.7320 By what date must I conduct performance tests or other initial compliance demonstrations?
- §63.7321 When must I conduct subsequent performance tests?
- §63.7322 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?
- §63.7323 What procedures must I use to establish operating limits?
- §63.7324 What procedures must I use to demonstrate initial compliance with the opacity limits?
- §63.7325 What test methods and other procedures must I use to demonstrate initial compliance with the TDS or constituent limits for quench water?
- §63.7326 How do I demonstrate initial compliance with the emission limitations that apply to me?
- How do I demonstrate initial compliance with the

<u>§63.7327</u>	work practice standards that apply to me?
<u>§63.7328</u>	How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?
<u>§63.7330</u>	What are my monitoring requirements?
<u>§63.7331</u>	What are the installation, operation, and maintenance requirements for my monitors?
<u>§63.7332</u>	How do I monitor and collect data to demonstrate continuous compliance?
<u>§63.7333</u>	How do I demonstrate continuous compliance with the emission limitations that apply to me?
<u>§63.7334</u>	How do I demonstrate continuous compliance with the work practice standards that apply to me?
<u>§63.7335</u>	How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?
<u>§63.7336</u>	What other requirements must I meet to demonstrate continuous compliance?
<u>§63.7340</u>	What notifications must I submit and when?
<u>§63.7341</u>	What reports must I submit and when?
<u>§63.7342</u>	What records must I keep?
<u>§63.7343</u>	In what form and how long must I keep my records?
<u>§63.7350</u>	What parts of the General Provisions apply to me?
<u>§63.7351</u>	Who implements and enforces this subpart?
<u>§63.7352</u>	What definitions apply to this subpart?
<u>Appendix</u>	<u>Table 1 to Subpart CCCCC of Part 63 --Applicability of General Provisions to Subpart CCCCC</u>

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Subpart DDDDD--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS

<u>§63.7480</u>	What is the purpose of this subpart?
<u>§63.7485</u>	Am I subject to this subpart?
<u>§63.7490</u>	What is the affected source of this subpart?
<u>§63.7491</u>	Are any boilers or process heaters not subject to this subpart?

- §63.7495 When do I have to comply with this subpart?
- §63.7499 What are the subcategories of boilers and process heaters?
- §63.7500 What emission limits, work practice standards, and operating limits must I meet?
- §63.7505 What are my general requirements for complying with this subpart?
- §63.7506 Do any boilers or process heaters have limited requirements?
- §63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?
- §63.7510 What are my initial compliance requirements and by what date must I conduct them?
- §63.7515 When must I conduct subsequent performance tests or fuel analyses?
- §63.7520 What performance tests and procedures must I use?
- §63.7521 What fuel analyses and procedures must I use?
- §63.7522 Can I use emission averaging to comply with this subpart?
- §63.7525 What are my monitoring, installation, operation, and maintenance requirements?
- §63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?
- §63.7535 How do I monitor and collect data to demonstrate continuous compliance?
- §63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?
- §63.7541 How do I demonstrate continuous compliance under the emission averaging provision?
- §63.7545 What notifications must I submit and when?
- §63.7550 What reports must I submit and when?
- §63.7555 What records must I keep?
- §63.7560 In what form and how long must I keep my records?
- §63.7565 What parts of the General Provisions apply to me?
- §63.7570 Who implements and enforces this subpart?
- §63.7575 What definitions apply to this subpart?

<u>Appendix</u>	<u>Table 1 to Subpart DDDDD of Part 63 --Emission Limits and Work Practice Standards</u>
<u>Appendix</u>	<u>Table 2 to Subpart DDDDD of Part 63 --Operating Limits for Boilers and Process Heaters With Particulate Matter Emission Limits</u>
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<u>Appendix</u>	<u>Table 4 to Subpart DDDDD of Part 63 --Operating Limits for Boilers and Process Heaters With Hydrogen Chloride Emission Limits</u>
<u>Appendix</u>	<u>Table 5 to Subpart DDDDD of Part 63 --Performance Testing Requirements</u>
<u>Appendix</u>	<u>Table 6 to Subpart DDDDD of Part 63 --Fuel Analysis Requirements</u>
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<u>Appendix</u>	<u>Table 8 to Subpart DDDDD of Part 63 -- Demonstrating Continuous Compliance</u>
<u>Appendix</u>	<u>Table 9 to Subpart DDDDD of Part 63 --Reporting Requirements</u>
<u>Appendix</u>	<u>Table 10 to Subpart DDDDD of Part 63 -- Applicability of General Provisions to Subpart DDDDD</u>
<u>Appendix</u>	<u>Appendix A to Subpart DDDDD of Part 63 -- Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives</u>

Subpart EEEEE--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR IRON AND STEEL FOUNDRIES

<u>§63.7680</u>	What is the purpose of this subpart?
<u>§63.7681</u>	Am I subject to this subpart?
<u>§63.7682</u>	What parts of my foundry does this subpart cover?
<u>§63.7683</u>	When do I have to comply with this subpart?
<u>§63.7690</u>	What emissions limitations must I meet?
<u>§63.7700</u>	What work practice standards must I meet?

- §63.7710 What are my operation and maintenance requirements?
- §63.7720 What are my general requirements for complying with this subpart?
- §63.7730 By what date must I conduct performance tests or other initial compliance demonstrations?
- §63.7731 When must I conduct subsequent performance tests?
- §63.7732 What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?
- §63.7733 What procedures must I use to establish operating limits?
- §63.7734 How do I demonstrate initial compliance with the emissions limitations that apply to me?
- §63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?
- §63.7736 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?
- §63.7740 What are my monitoring requirements?
- §63.7741 What are the installation, operation, and maintenance requirements for my monitors?
- §63.7742 How do I monitor and collect data to demonstrate continuous compliance?
- §63.7743 How do I demonstrate continuous compliance with the emissions limitations that apply to me?
- §63.7744 How do I demonstrate continuous compliance with the work practice standards that apply to me?
- §63.7745 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?
- §63.7746 What other requirements must I meet to demonstrate continuous compliance?
- §63.7747 How do I apply for alternative monitoring requirements for a continuous emissions monitoring system?
- §63.7750 What notifications must I submit and when?
- §63.7751 What reports must I submit and when?
- §63.7752 What records must I keep?

<u>§63.7753</u>	In what form and for how long must I keep my records?
<u>§63.7760</u>	What parts of the General Provisions apply to me?
<u>§63.7761</u>	Who implements and enforces this subpart?
<u>§63.7765</u>	What definitions apply to this subpart?
<u>Appendix</u>	<u>Table 1 to Subpart EEEEE of Part 63 --Applicability of General Provisions to Subpart EEEEE</u>

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Subpart FFFFF--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR INTEGRATED IRON AND STEEL MANUFACTURING FACILITIES

<u>§63.7780</u>	What is the purpose of this subpart?
<u>§63.7781</u>	Am I subject to this subpart?
<u>§63.7782</u>	What parts of my plant does this subpart cover?
<u>§63.7783</u>	When do I have to comply with this subpart?
<u>§63.7790</u>	What emission limitations must I meet?
<u>§63.7800</u>	What are my operation and maintenance requirements?
<u>§63.7810</u>	What are my general requirements for complying with this subpart?
<u>§63.7820</u>	By what date must I conduct performance tests or other initial compliance demonstrations?
<u>§63.7821</u>	When must I conduct subsequent performance tests?
<u>§63.7822</u>	What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?
<u>§63.7823</u>	What test methods and other procedures must I use to demonstrate initial compliance with the opacity limits?
<u>§63.7824</u>	What test methods and other procedures must I use to establish and demonstrate initial compliance with operating limits?
<u>§63.7825</u>	How do I demonstrate initial compliance with the emission limitations that apply to me?
<u>§63.7826</u>	How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?
<u>§63.7830</u>	What are my monitoring requirements?

<u>§63.7831</u>	What are the installation, operation, and maintenance requirements for my monitors?
<u>§63.7832</u>	How do I monitor and collect data to demonstrate continuous compliance?
<u>§63.7833</u>	How do I demonstrate continuous compliance with the emission limitations that apply to me?
<u>§63.7834</u>	How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?
<u>§63.7835</u>	What other requirements must I meet to demonstrate continuous compliance?
<u>§63.7840</u>	What notifications must I submit and when?
<u>§63.7841</u>	What reports must I submit and when?
<u>§63.7842</u>	What records must I keep?
<u>§63.7843</u>	In what form and how long must I keep my records?
<u>§63.7850</u>	What parts of the General Provisions apply to me?
<u>§63.7851</u>	Who implements and enforces this subpart?
<u>§63.7852</u>	What definitions apply to this subpart?
<u>Appendix</u>	<u>Table 1 to Subpart FFFFF of Part 63 --Emission and Opacity Limits</u>
<u>Appendix</u>	<u>Table 2 to Subpart FFFFF of Part 63 --Initial Compliance With Emission and Opacity Limits</u>
<u>Appendix</u>	<u>Table 3 to Subpart FFFFF of Part 63 --Continuous Compliance With Emission and Opacity Limits</u>
<u>Appendix</u>	<u>Table 4 to Subpart FFFFF of Part 63 --Applicability of General Provisions to Subpart FFFFF</u>

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Subpart GGGGG--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: SITE REMEDIATION

<u>§63.7880</u>	What is the purpose of this subpart?
<u>§63.7881</u>	Am I subject to this subpart?
<u>§63.7882</u>	What site remediation sources at my facility does this subpart affect?
<u>§63.7883</u>	When do I have to comply with this subpart?
<u>§63.7884</u>	What are the general standards I must meet for each site remediation with affected sources?

- §63.7885 What are the general standards I must meet for my affected process vents?
- §63.7886 What are the general standards I must meet for my affected remediation material management units?
- §63.7887 What are the general standards I must meet for my affected equipment leak sources?
- §63.7888 How do I implement this rule at my facility using the cross-referenced requirements in other subparts?
- §63.7890 What emissions limitations and work practice standards must I meet for process vents?
- §63.7891 How do I demonstrate initial compliance with the emissions limitations and work practice standards for process vents?
- §63.7892 What are my inspection and monitoring requirements for process vents?
- §63.7893 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for process vents?
- §63.7895 What emissions limitations and work practice standards must I meet for tanks?
- §63.7896 How do I demonstrate initial compliance with the emissions limitations and work practice standards for tanks?
- §63.7897 What are my inspection and monitoring requirements for tanks?
- §63.7898 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for tanks?
- §63.7900 What emissions limitations and work practice standards must I meet for containers?
- §63.7901 How do I demonstrate initial compliance with the emissions limitations and work practice standards for containers?
- §63.7902 What are my inspection and monitoring requirements for containers?
- §63.7903 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for containers?
- §63.7905 What emissions limitations or work practice standards must I meet for surface impoundments?



- §63.7906 How do I demonstrate initial compliance with the emissions limitations or work practice standards for surface impoundments?
- §63.7907 What are my inspection and monitoring requirements for surface impoundments?
- §63.7908 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for surface impoundments?
- §63.7910 What emissions limitations and work practice standards must I meet for separators?
- §63.7911 How do I demonstrate initial compliance with the emissions limitations and work practice standards for separators?
- §63.7912 What are my inspection and monitoring requirements for separators?
- §63.7913 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for separators?
- §63.7915 What emissions limitations and work practice standards must I meet for transfer systems?
- §63.7916 How do I demonstrate initial compliance with the emissions limitations and work practice standards for transfer systems?
- §63.7917 What are my inspection and monitoring requirements for transfer systems?
- §63.7918 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for transfer systems?
- §63.7920 What emissions limitations and work practice standards must I meet for equipment leaks?
- §63.7921 How do I demonstrate initial compliance with the emissions limitations and work practice standards for equipment leaks?
- §63.7922 How do I demonstrate continuous compliance with the work practice standards for equipment leaks?
- §63.7925 What emissions limitations and work practice standards must I meet for closed vent systems and control devices?
- §63.7926 How do I demonstrate initial compliance with the emission limitations and work practice standards for closed vent systems and control devices?

- §63.7927 What are my inspection and monitoring requirements for closed vent systems and control devices?
- §63.7928 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for closed vent systems and control devices?
- §63.7935 What are my general requirements for complying with this subpart?
- §63.7936 What requirements must I meet if I transfer remediation material off-site to another facility?
- §63.7937 How do I demonstrate initial compliance with the general standards?
- §63.7938 How do I demonstrate continuous compliance with the general standards?
- §63.7940 By what date must I conduct performance tests or other initial compliance demonstrations?
- §63.7941 How do I conduct a performance test, design evaluation, or other type of initial compliance demonstration?
- §63.7942 When must I conduct subsequent performance tests?
- §63.7943 How do I determine the average VOHAP concentration of my remediation material?
- §63.7944 How do I determine the maximum HAP vapor pressure of my remediation material?
- §63.7945 What are my monitoring installation, operation, and maintenance requirements?
- §63.7946 How do I monitor and collect data to demonstrate continuous compliance?
- §63.7947 What are my monitoring alternatives?
- §63.7950 What notifications must I submit and when?
- §63.7951 What reports must I submit and when?
- §63.7952 What records must I keep?
- §63.7953 In what form and how long must I keep my records?
- §63.7955 What parts of the General Provisions apply to me?
- §63.7956 Who implements and enforces this subpart?
- §63.7957 What definitions apply to this subpart?
- Appendix Table 1 to Subpart GGGGG of Part 63 --List of Hazardous Air Pollutants

Appendix      Table 2 to Subpart GGGGG of Part 63 --Control Levels as Required by 63.7895() for Tanks Managing Remediation Material With a Maximum HAP Vapor Pressure Less Than 76.6P

Appendix      Table 3 to Subpart GGGGG of Part 63 --Applicability of General Provisions to Subpart GGGGG

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Subpart HHHHH--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MISCELLANEOUS COATING MANUFACTURING

- §63.7980      What is the purpose of this subpart?
- §63.7985      Am I subject to the requirements in this subpart?
- §63.7990      What parts of my plant does this subpart cover?
- §63.7995      When do I have to comply with this subpart?
- §63.8000      What are my general requirements for complying with this subpart?
- §63.8005      What requirements apply to my process vessels?
- §63.8010      What requirements apply to my storage tanks?
- §63.8015      What requirements apply to my equipment leaks?
- §63.8020      What requirements apply to my wastewater streams?
- §63.8025      What requirements apply to my transfer operations?
- §63.8030      What requirements apply to my heat exchange systems?
- §63.8050      How do I comply with emissions averaging for stationary process vessels at existing sources?
- §63.8055      How do I comply with a weight percent HAP limit in coating products?
- §63.8070      What notifications must I submit and when?
- §63.8075      What reports must I submit and when?
- §63.8080      What records must I keep?
- §63.8090      What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
- §63.8095      What parts of the General Provisions apply to me?
- §63.8100      Who implements and enforces this subpart?
- §63.8105      What definitions apply to this subpart?

Table 1 to Subpart HHHHH of Part 63 --Emission

<u>Appendix</u>	Limits and Work Practice Standards for Process Vessels
<u>Appendix</u>	<u>Table 2 to Subpart HHHHH of Part 63</u> --Emission Limits for Storage Tanks
<u>Appendix</u>	<u>Table 3 to Subpart HHHHH of Part 63</u> -- Requirements for Equipment Leaks
<u>Appendix</u>	<u>Table 4 to Subpart HHHHH of Part 63</u> --Emission Limits and Work Practice Standards for Wastewater Streams
<u>Appendix</u>	<u>Table 5 to Subpart HHHHH of Part 63</u> --Emission Limits and Work Practice Standards for Transfer Operations
<u>Appendix</u>	<u>Table 6 to Subpart HHHHH of Part 63</u> -- Requirements for Heat Exchange Systems
<u>Appendix</u>	<u>Table 7 to Subpart HHHHH of Part 63</u> --Partially Soluble Hazardous Air Pollutants
<u>Appendix</u>	<u>Table 8 to Subpart FFFF of Part 63</u> --Soluble Hazardous Air Pollutants
<u>Appendix</u>	<u>Table 9 to Subpart HHHHH of Part 63</u> -- Requirements for Reports
<u>Appendix</u>	<u>Table 10 to Subpart HHHHH of Part 63</u> -- Applicability of General Provisions to Subpart HHHHH

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Subpart IIII--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MERCURY EMISSIONS FROM MERCURY CELL CHLOR-ALKALI PLANTS

<u>§63.8180</u>	What is the purpose of this subpart?
<u>§63.8182</u>	Am I subject to this subpart?
<u>§63.8184</u>	What parts of my plant does this subpart cover?
<u>§63.8186</u>	When do I have to comply with this subpart?
<u>§63.8190</u>	What emission limitations must I meet?
<u>§63.8192</u>	What work practice standards must I meet?
<u>§63.8222</u>	What are my operation and maintenance requirements?
<u>§63.8226</u>	What are my general requirements for complying with this subpart?
	By what date must I conduct performance tests or

- §63.8230 other initial compliance demonstrations?
- §63.8232 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits?
- §63.8234 What equations and procedures must I use for the initial compliance demonstration?
- §63.8236 How do I demonstrate initial compliance with the emission limitations and work practice standards?
- §63.8240 What are my monitoring requirements?
- §63.8242 What are the installation, operation, and maintenance requirements for my continuous monitoring systems?
- §63.8243 What equations and procedures must I use to demonstrate continuous compliance?
- §63.8244 How do I monitor and collect data to demonstrate continuous compliance?
- §63.8246 How do I demonstrate continuous compliance with the emission limitations and work practice standards?
- §63.8248 What other requirements must I meet?
- §63.8252 What notifications must I submit and when?
- §63.8254 What reports must I submit and when?
- §63.8256 What records must I keep?
- §63.8258 In what form and how long must I keep my records?
- §63.8262 What parts of the General Provisions apply to me?
- §63.8264 Who implements and enforces this subpart?
- §63.8266 What definitions apply to this subpart?
- Appendix Table 1 to Subpart IIII of Part 63 --Work Practice Standards--Design, Operation, and Maintenance Requirements
- Appendix Table 2 to Subpart IIII of Part 63 --Work Practice Standards--Required Inspections
- Appendix Table 3 to Subpart IIII of Part 63 --Work Practice Standards--Required Actions for Liquid Mercury Spills and Accumulations and Hydrogen and Mercury Vapor Leaks
- Appendix Table 4 to Subpart IIII of Part 63 --Work Practice Standards--Requirements for Mercury Liquid Collection

<u>Appendix</u>	<u>Table 5 to Subpart IIII of Part 63 --Required Elements of Floor-Level Mercury Vapor Measurement and Cell Room Monitoring Plans</u>
<u>Appendix</u>	<u>Table 6 to Subpart IIII of Part 63 --Examples of Techniques for Equipment Problem Identification, Leak Detection and Mercury Vapor</u>
<u>Appendix</u>	<u>Table 7 to Subpart IIII of Part 63 --Required Elements of Washdown Plans</u>
<u>Appendix</u>	<u>Table 8 to Subpart IIII of Part 63 --Requirements for Cell Room Monitoring Program</u>
<u>Appendix</u>	<u>Table 9 to Subpart IIII of Part 63 --Required Records for Work Practice Standards</u>
<u>Appendix</u>	<u>Table 10 to Subpart IIII of Part 63 --Applicability of General Provisions to Subpart IIII</u>

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Subpart JJJJ--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR BRICK AND STRUCTURAL CLAY PRODUCTS MANUFACTURING

<u>§63.8380</u>	What is the purpose of this subpart?
<u>§63.8385</u>	Am I subject to this subpart?
<u>§63.8390</u>	What parts of my plant does this subpart cover?
<u>§63.8395</u>	When do I have to comply with this subpart?
<u>§63.8405</u>	What emission limitations must I meet?
<u>§63.8410</u>	What are my options for meeting the emission limitations?
<u>§63.8420</u>	What are my general requirements for complying with this subpart?
<u>§63.8425</u>	What do I need to know about operation, maintenance, and monitoring plans?
<u>§63.8435</u>	By what date must I conduct performance tests?
<u>§63.8440</u>	When must I conduct subsequent performance tests?
<u>§63.8445</u>	How do I conduct performance tests and establish operating limits?
<u>§63.8450</u>	What are my monitoring installation, operation, and maintenance requirements?
<u>§63.8455</u>	How do I demonstrate initial compliance with the emission limitations?

<a href="#">§63.8465</a>	How do I monitor and collect data to demonstrate continuous compliance?
<a href="#">§63.8470</a>	How do I demonstrate continuous compliance with the emission limitations?
<a href="#">§63.8480</a>	What notifications must I submit and when?
<a href="#">§63.8485</a>	What reports must I submit and when?
<a href="#">§63.8490</a>	What records must I keep?
<a href="#">§63.8495</a>	In what form and for how long must I keep my records?
<a href="#">§63.8505</a>	What parts of the General Provisions apply to me?
<a href="#">§63.8510</a>	Who implements and enforces this subpart?
<a href="#">§63.8515</a>	What definitions apply to this subpart?
<a href="#">Appendix</a>	<a href="#">Table 1 to Subpart JJJJ of Part 63</a> --Emission Limits
<a href="#">Appendix</a>	<a href="#">Table 2 to Subpart JJJJ of Part 63</a> --Operating Limits
<a href="#">Appendix</a>	<a href="#">Table 3 to Subpart JJJJ of Part 63</a> --Requirements for Performance Tests
<a href="#">Appendix</a>	<a href="#">Table 4 to Subpart JJJJ of Part 63</a> --Initial Compliance With Emission Limitations
<a href="#">Appendix</a>	<a href="#">Table 5 to Subpart JJJJ of Part 63</a> --Continuous Compliance With Emission Limits and Operating Limits
<a href="#">Appendix</a>	<a href="#">Table 6 to Subpart JJJJ of Part 63</a> --Requirements for Reports
<a href="#">Appendix</a>	<a href="#">Table 7 to Subpart JJJJ of Part 63</a> --Applicability of General Provisions to Subpart JJJJ

Subpart KKKKK--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR CLAY CERAMICS MANUFACTURING

<a href="#">§63.8530</a>	What is the purpose of this subpart?
<a href="#">§63.8535</a>	Am I subject to this subpart?
<a href="#">§63.8540</a>	What parts of my plant does this subpart cover?
<a href="#">§63.8545</a>	When do I have to comply with this subpart?
<a href="#">§63.8555</a>	What emission limitations and work practice standards must I meet?
<a href="#">§63.8560</a>	What are my options for meeting the emission

	limitations and work practice standards?
<u>§63.8570</u>	What are my general requirements for complying with this subpart?
<u>§63.8575</u>	What do I need to know about operation, maintenance, and monitoring plans?
<u>§63.8585</u>	By what date must I conduct performance tests?
<u>§63.8590</u>	When must I conduct subsequent performance tests?
<u>§63.8595</u>	How do I conduct performance tests and establish operating limits?
<u>§63.8600</u>	What are my monitoring installation, operation, and maintenance requirements?
<u>§63.8605</u>	How do I demonstrate initial compliance with the emission limitations and work practice standards?
<u>§63.8615</u>	How do I monitor and collect data to demonstrate continuous compliance?
<u>§63.8620</u>	How do I demonstrate continuous compliance with the emission limitations and work practice standards?
<u>§63.8630</u>	What notifications must I submit and when?
<u>§63.8635</u>	What reports must I submit and when?
<u>§63.8640</u>	What records must I keep?
<u>§63.8645</u>	In what form and for how long must I keep my records?
<u>§63.8655</u>	What parts of the General Provisions apply to me?
<u>§63.8660</u>	Who implements and enforces this subpart?
<u>§63.8665</u>	What definitions apply to this subpart?
<u>Appendix</u>	<u>Table 1 to Subpart KKKKK of Part 63</u> --Emission Limits
<u>Appendix</u>	<u>Table 2 to Subpart KKKKK of Part 63</u> --Operating Limits
<u>Appendix</u>	<u>Table 3 to Subpart KKKKK of Part 63</u> --Work Practice Standards
<u>Appendix</u>	<u>Table 4 to Subpart KKKKK of Part 63</u> --Requirements for Performance Tests
<u>Appendix</u>	<u>Table 5 to Subpart KKKKK of Part 63</u> --Initial Compliance with Emission Limitations and Work Practice Standards
	<u>Table 6 to Subpart KKKKK of Part 63</u> --Continuous



<u>Appendix</u>	Compliance With Emission Limitations and Work Practice Standards
<u>Appendix</u>	<u>Table 7 to Subpart KKKKK of Part 63 -- Requirements for Reports</u>
<u>Appendix</u>	<u>Table 8 to Subpart KKKKK of Part 63 --Applicability of General Provisions to Subpart KKKKK</u>

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Subpart LLLLL--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: ASPHALT PROCESSING AND ASPHALT ROOFING MANUFACTURING

<u>§63.8680</u>	What is the purpose of this subpart?
<u>§63.8681</u>	Am I subject to this subpart?
<u>§63.8682</u>	What parts of my plant does this subpart cover?
<u>§63.8683</u>	When must I comply with this subpart?
<u>§63.8684</u>	What emission limitations must I meet?
<u>§63.8685</u>	What are my general requirements for complying with this subpart?
<u>§63.8686</u>	By what date must I conduct performance tests or other initial compliance demonstrations?
<u>§63.8687</u>	What performance tests, design evaluations, and other procedures must I use?
<u>§63.8688</u>	What are my monitoring installation, operation, and maintenance requirements?
<u>§63.8689</u>	How do I demonstrate initial compliance with the emission limitations?
<u>§63.8690</u>	How do I monitor and collect data to demonstrate continuous compliance?
<u>§63.8691</u>	How do I demonstrate continuous compliance with the operating limits?
<u>§63.8692</u>	What notifications must I submit and when?
<u>§63.8693</u>	What reports must I submit and when?
<u>§63.8694</u>	What records must I keep?
<u>§63.8695</u>	In what form and how long must I keep my records?
<u>§63.8696</u>	What parts of the General Provisions apply to me?
<u>§63.8697</u>	Who implements and enforces this subpart?
<u>§63.8698</u>	What definitions apply to this subpart?

<u>Appendix</u>	<u>Table 1 to Subpart LLLLL of Part 63 --Emission Limitations</u>
<u>Appendix</u>	<u>Table 2 to Subpart LLLLL of Part 63 --Operating Limits</u>
<u>Appendix</u>	<u>Table 3 to Subpart LLLLL of Part 63 --Requirements for Performance Tests</u>
<u>Appendix</u>	<u>Table 4 to Subpart LLLLL of Part 63 --Initial Compliance With Emission Limitations</u>
<u>Appendix</u>	<u>Table 5 to Subpart LLLLL of Part 63 --Continuous Compliance With Operating Limits</u>
<u>Appendix</u>	<u>Table 6 to Subpart LLLLL of Part 63 --Requirements for Reports</u>
<u>Appendix</u>	<u>Table 7 to Subpart LLLLL of Part 63 --Applicability of General Provisions to Subpart LLLLL</u>

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Subpart MMMM--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: FLEXIBLE POLYURETHANE FOAM FABRICATION OPERATIONS

<u>§63.8780</u>	What is the purpose of this subpart?
<u>§63.8782</u>	Am I subject to this subpart?
<u>§63.8784</u>	What parts of my plant does this subpart cover?
<u>§63.8786</u>	When do I have to comply with this subpart?
<u>§63.8790</u>	What emission limitations must I meet?
<u>§63.8794</u>	What are my general requirements for complying with this subpart?
<u>§63.8798</u>	By what date must I conduct performance tests or other initial compliance demonstrations?
<u>§63.8800</u>	What performance tests and other procedures must I use to demonstrate compliance with the emission limit for flame lamination?
<u>§63.8802</u>	What methods must I use to demonstrate compliance with the emission limitation for loop slitter adhesive use?
<u>§63.8806</u>	How do I demonstrate initial compliance with the emission limitations?
<u>§63.8810</u>	How do I monitor and collect data to demonstrate continuous compliance?
<u>§63.8812</u>	How do I demonstrate continuous compliance with the emission limitations?

<u>§63.8816</u>	What notifications must I submit and when?
<u>§63.8818</u>	What reports must I submit and when?
<u>§63.8820</u>	What records must I keep?
<u>§63.8822</u>	In what form and how long must I keep my records?
<u>§63.8826</u>	What parts of the General Provisions apply to me?
<u>§63.8828</u>	Who implements and enforces this subpart?
<u>§63.8830</u>	What definitions apply to this subpart?
<u>Appendix</u>	<u>Table 1 to Subpart M M M M M of Part 63 --Emission Limits</u>
<u>Appendix</u>	<u>Table 2 to Subpart M M M M M of Part 63 --Operating Limits for New or Reconstructed Flame Lamination Affected Sources</u>
<u>Appendix</u>	<u>Table 3 to Subpart M M M M M of Part 63 -- Performance Test Requirements for New or Reconstructed Flame Lamination Affected Sources</u>
<u>Appendix</u>	<u>Table 4 to Subpart M M M M M of Part 63 --Initial Compliance With Emission Limits</u>
<u>Appendix</u>	<u>Table 5 to Subpart M M M M M of Part 63 -- Continuous Compliance With Emission Limits and Operating Limits</u>
<u>Appendix</u>	<u>Table 6 to Subpart M M M M M of Part 63 -- Requirements for Reports</u>
<u>Appendix</u>	<u>Table 7 to Subpart M M M M M of Part 63 -- Applicability of General Provisions to Subpart M M M M M</u>

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**CERTIFICATE OF SERVICE**

I, Pam Owen, hereby certify that a copy of this permit has been mailed by first class mail to Georgia-Pacific Wood Products, LLC d/b/a Fordyce OSB, P.O. Box 1095, Fordyce, AR, 71742, on this 7<sup>th</sup> day of November, 2012.

Pam Owen  
Pam Owen, AAIL, Air Division