

RESPONSE TO COMMENTS

Flakeboard America, LLC DRAFT PERMIT #0688-AOP-R7 AFIN: 30-00015

On October 18, 2008, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period Engineering, Compliance and Construction, Inc. (ECCI) of Arkansas, on the behalf of Flakeboard America, LLC, submitted comments, data, views or arguments on the draft permitting decision. The Department's response to these issues follows.

Issue #1:

The facility states, "Flakeboard requests that Specific Condition 6 be revised to remove reference to the abort gates. The abort gates are strictly used during an emergency, or in the event of a malfunction. These situations are more appropriately addressed in Plantwide Conditions 14 and 24. As required by these two conditions, the position of the abort gate will be monitored continuously; the periods when the gates are open will be recorded; and the periods when the gates are open will be reported in the semi-annual SS&M report. By eliminating references to the abort gates in Specific Condition 6, redundant (and conflicting) requirements will be eliminated."

Response #1:

The permit has been updated to reflect the changes requested by the facility.

Issue #2:

The facility states, "Flakeboard requests that Specific Condition 27 be changed from ". . . shall not operate SN-18 more 4,000 hours per consecutive twelve-month period" to ". . . shall not operate SN-18 more than 2,000 hours per semi-annual SS&M reporting period." This will eliminate redundant recordkeeping and reporting requirements."

Response #2:

The Department requires that all Title V permitted sources submit a full year's worth of data in the six month monitoring reports, therefore recordkeeping and reporting requirements would not be removed. The permit condition will remain as written.

Issue #3:

The facility states, "Flakeboard requests that Specific Condition 29 be revised to state: The permittee shall maintain records of the amount of operational uptime through SN-18 in accordance with the provisions of the SSMP as required by Plantwide Conditions 14 and 24."

Response #3:

To determine compliance with Specific Condition 28, monthly records with a rolling 12 month total must be kept. The permit condition will remain as written.

Issue #4:

The facility states, "Flakeboard requests that fugitive road emissions be removed from the insignificant activities list. With this modification the road emissions are now permitted."

Response #4:

The permit has been updated to reflect the changes requested by the facility.

ADEQ OPERATING AIR PERMIT

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

Permit No. : 0688-AOP-R7

Renewal # 1

IS ISSUED TO:

Flakeboard America, LLC
1275 Willamette Road
Malvern, AR 72104
Hot Spring County
AFIN: 30-00015

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:


June 13, 2007

AND

June 12, 2012

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

Signed:



Mike Bates
Chief, Air Division

December 15, 2008
Date Modified

Flakeboard America, LLC
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List of Acronyms and Abbreviations

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

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SECTION I: FACILITY INFORMATION

PERMITTEE: Flakeboard America, LLC

AFIN: 30-00015

PERMIT NUMBER: 0688-AOP-R7

FACILITY ADDRESS: 1275 Willamette Road
Malvern, AR 72104

MAILING ADDRESS: 1275 Willamette Road
Malvern, AR 72104

COUNTY: Hot Spring County

CONTACT NAME: Mike Rhodes

CONTACT POSITION: EHS Manager

TELEPHONE NUMBER: 501-337-9400

REVIEWING ENGINEER: Joseph Hurt

UTM North South (Y): Zone 15: 3804714.36 m

UTM East West (X): Zone 15: 525240.06 m

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SECTION II: INTRODUCTION

Summary of Permit Activity

Flakeboard America, LLC (Flakeboard), formerly Weyerhaeuser, operates a medium density fiberboard (MDF) manufacturing facility outside the city of Malvern, AR. MDF is a composite panel product similar to particle board, but made up of a more refined wood fiber. This product is desirable for furniture manufacturing and other uses because of its machineability and surface characteristics.

Flakeboard is submitting this application to update Formaldehyde emissions based on recent testing, and to remove the Refiner Reject Vault Cyclones from the Insignificant Activity list and add them as sources. The fugitive road emissions (SN-34) were also added with this permitting action. The total permitted emission increases include 23.0 tpy of PM, 9.4 tpy of PM₁₀, 0.7 tpy of VOC, 0.23 tpy of Methanol, and 46.34 tpy of Formaldehyde.

Process Description

Raw Material Storage: Two basic raw materials are used to manufacture MDF: wood residuals (from sawmills, green chips, and plywood plants) and a binding resin. All wood raw material is brought to the facility by eighteen-wheel trucks. Wood (Southern Yellow Pine) in the form of green chips, plytrim, and dry planer shavings are unloaded into a hopper and transported by conveyor belt to be stored at the raw material storage area. The dry planer shavings and plytrim are stored in the raw material storage building. The green chips, having a high moisture content and large particle size, are stored in an outside pile (SN-19). Resin is delivered to the plant by tanker truck and stored in six identical 10,000 gallon fixed roof storage tanks (SN-25) located within the milling and drying building.

Refining: The wood raw materials (in proportions of approximately 30% ($\pm 15\%$) green chips, 60% ($\pm 20\%$) dry planer shavings, and 10% ($\pm 5\%$) plytrim) are transferred from their respective storage areas into the storage metering silos. This is accomplished by use of a front-end loader transferring the wood raw material into a hopper and then onto a conveyor. The combined wood material is then moved from the storage metering silo to the refiner metering bin via a series of belts and screws. Following the refiner metering bin, the wood raw material feed is split between Line 1 and Line 2. At this point, the MDF production process is very similar between the two production lines.

Water, an urea scavenger (if needed), and a wax additive are introduced at the wetting and mixing screw following the split of the wood material flow between Line 1 and Line 2. The wood is transported, via screw conveyor to a digester. The digester adds moisture and heat to soften the wood for the refining process. The softened wood material then passes through pressurized steam refiners. The refiners machine the wood material into small, uniform fibers through centrifugal force and physical abrasion. Reject wood fiber generated during start-up and shutdown of the refiners is pneumatically conveyed to one of the Refiner Reject Vault Cyclones (SN-18) for recycling back in the process.

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Drying: The wood fiber mixture from the refiners is injected with an urea-formaldehyde or melamine-urea formaldehyde resin binder and is pneumatically conveyed through a blowline to the infeed of the fiber dryer. The fiber mixture is dried in a pneumatic flash tube dryer using a 50 MMBTU/hr natural gas fired burner as a heat source. The exhaust from each flash tube dryer (at approximately 120°F to 150°F) is directed into dual high efficiency cyclones, followed by Regenerative Catalytic Oxidizers (RCOs). The Line 1 flash tube dryer is controlled by the West Cyclone and the East Cyclone. The Line 2 flash tube dryer is controlled by the West Cyclone and the East Cyclone. The dried fiber from the line 1 cyclone is conveyed by negative air to the fiber metering bins ready for mat forming. A secondary pneumatic fiber transport system provides low temperature and humidity for the line 2 system during conveyance to the fiber metering bins.

In order to meet BACT standards for the Line 2 Dryer Cyclone Vent PM and VOC emissions, in 1997 Flakeboard installed a thermal oxidizer equipped with a low NO_x burner on the Line 2 dryer cyclones. This was subsequently replaced with an RCO. This modification resulted in a 96% decrease in VOC emissions and a 95% decrease in PM emissions exiting the Dryer Cyclone Vents.

Mat Forming: The metering bin deposits a mat of fiberized wood, resin, and wax mixture on a weighbelt to determine the density of the material. The fiberized mixture then continues by air conveyance system to the Doffin bin located at the production line. From the Doffin bin, a continuous mat of fiber is deposited on a moving forming wire. The forming operation is completed with vacuum fans which pull air from under the former, and scalpers that control the mat thickness. Particulate emissions from the Line 1 and Line 2 air conveyance systems are controlled by the L1 Weighed Fiber Cyclone and Pneumatic Fabric Filter (SN-04), and L2 Pneumatic Fiber Transport System Cyclone and two Pneumatic Fabric Filters (SN-29), respectively. Line 1 uses the L1 Reject Cyclone and Former Vacuum plus two Pneumatic Fabric Filters (SN-22 and SN-22a) for particulate emissions control while Line 2 uses the Mat Reject Cyclone plus a Pneumatic Fabric Filter (SN-27) and the Former Vacuum plus a Pneumatic Fabric Filter (SN-28) for particulate emissions control. The formed mat is transported on belt conveyors where it is prepressed (densified) and trimmed to rough dimensions prior to pressing operations. Mats which do not meet weight standards are rejected. The particulate emissions from the cleanup and shaveoff of Line 2 are controlled by a Pneumatic Fabric Filter (SN-09).

Pressing: The prepressed mats are loaded into the presses (L1 MDF Press and L2 MDF Press) from the belt conveyors. The hot presses use heat from steam and pressure to cure the resin. Both presses have been enclosed and exhaust to Pneumatic Fabric Filters (SN-20 and SN-21). Line 1 and Line 2 press enclosure baghouse exhausts are routed to the inlet of their respective dryer in order to achieve additional emission control.

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Finishing: Following the L1 and L2 MDF presses, the rough MDF panels are conveyed to a staging area where the boards are cooled to prevent damage from heat buildup. The panels are then stacked and transferred to the finishing area. All rough panels are sanded before being sawed to finished panel dimensions. The plant sander has particulate matter control provided by a negative air pneumatic system using a pair of pneumatic fabric filters, identified as Sander Pneumatic Fabric Filters North and South (SN-13). Both Pneumatic Fabric Filters have one common discharge.

Following sanding, the MDF panels are either packaged or cut to customer specified dimensions. The cut-up saw is equipped with a pneumatic sawdust pickup system with two pneumatic fabric filters for control of particulate matter. These baghouse are identified as the Sawdust Pickup Pneumatic Fabric Filter (SN-12) and the Reclaim Silo Baghouse (SN-32). Hog trim material from the cut-up saw is conveyed to the Trim Silo Cyclone. In order to further reduce the PM emissions vented to the atmosphere, the Trim Silo Cyclone has been re-routed to an existing pneumatic fabric filter (SN-14) for an additional 99.9% PM capture efficiency.

Plant Steam: The Malvern MDF plant operates one boiler, the Lillie boiler (SN-30) for steam production. The boiler was built in 1979 by Nebraska Boiler Company. In 2003, the boiler was refurbished and installed at the Malvern Facility. The cost to refurbish the unit was determined to be less than one-half the cost of replacing the unit, therefore the unit is not considered re-constructed per 40 CFR 63.2. The boiler is rated at 78.4 million British thermal units per hour (mmBtu/hr) and is utilized for Line 1 heating requirements. This boiler produces an average of 60,000 pounds of steam per hour. The Lillie boiler uses natural gas as the only fuel.

In order to meet BACT standards for NO_x, VOC, CO, and PM emissions, the facility has replaced the Line 2 Woodwaste-Fired Boiler with a package boiler equipped with a natural gas low NO_x burner.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective October 15, 2007
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002
40 CFR 60 Subpart Dc – <i>Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units</i>
40 CFR 63 Subpart DDDD - <i>National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products</i>

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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	34.5	76.9		
		PM ₁₀	27.5	63.3		
		SO ₂	2.1	6.1		
		VOC	35.6	96.0		
		CO	88.6	227.4		
		NO _x	60.1	150.9		
HAPs		Acetaldehyde*	0.27	0.40		
		Formaldehyde*	13.96	59.01		
		Methanol*	8.94	14.51		
		MIBK*	0.20	0.20		
		Phenol*	1.11	1.47		
Air Contaminants **		Acetone**	0.34	0.60		
01 & 26	Line 1 Fiber Dryer West & East Cyclones, Line 1 Press and RCO	PM	17.3	30.3		
		PM ₁₀	17.3	30.3		
		SO ₂	2.0	5.6		
		VOC	26.7	71.0		
		CO	85.4	213.3		
		NO _x	56.9	136.8		
	Line 2 Fiber Dryer Cyclones, Line 2 Press and RCO	Acetone	0.2	0.3		
		Acetaldehyde	0.2	0.2		
		Formaldehyde	12.05	53.00		
		Methanol	5.8	7.8		
		MIBK	0.2	0.2		
		Phenol	0.2	0.2		
		04	Line 1 Weighed Fiber Fabric Filter	PM	0.4	1.4
				PM ₁₀	0.4	1.4
VOC	0.5			1.7		
Formaldehyde	0.23			0.94		
Methanol	0.18			0.73		
05	Source Removed from Service					
09	Cleanup and Shaveoff System	PM	0.1	0.3		
		PM ₁₀	0.1	0.3		
		VOC	0.5	1.5		
		Formaldehyde	0.26	0.82		

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Methanol	0.20	0.64
10	#2 Boiler	Source Removed from Service		
11A	Electrified Filter Bed	Source Removed from Service		
11B	Electrified Filter Bed	Source Removed from Service		
12	Sawdust Pickup	PM	0.1	0.5
		PM ₁₀	0.1	0.5
		VOC	2.3	2.9
		Formaldehyde	0.02	0.09
		Methanol	1.59	2.04
		Phenol	0.63	0.82
13	Sander Pneumatic Fabric Filters	PM	0.5	2.1
		PM ₁₀	0.5	2.1
		VOC	0.5	0.8
		Formaldehyde	0.04	0.05
		Methanol	0.15	0.23
		Phenol	0.28	0.45
		Acetone	0.07	0.11
14	Trim & Fuel Silo Pneumatic Fabric Filter	PM	0.1	0.2
		PM ₁₀	0.1	0.2
16	Dry Shavings Pneumatic Fabric Filter	PM	0.1	0.5
		PM ₁₀	0.1	0.5
17	UV Filler Sander	Source Removed from Service		
18	Refiner Reject-Startup Vault Cyclones	PM	2.2	4.5
		PM ₁₀	2.2	4.5
19	Raw Material Storage	PM	0.1	0.1
		PM ₁₀	0.1	0.1
20	Line 1 Press Building Vents	Emissions routed to SN-01		
21	Line 2 Press Vents	Emissions routed to SN-26		
22	Line 1 Reject and Former Vacuum Baghouse #1	PM	0.7	2.2
		PM ₁₀	0.7	2.2
		VOC	0.5	1.0
		Formaldehyde	0.23	0.53
		Methanol	0.18	0.41
22a	Line 1 Reject and Former Vacuum Baghouse #2	PM	0.4	1.5
		PM ₁₀	0.4	1.5

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		VOC	***	***
		Formaldehyde	***	***
		Methanol	***	***
23	Ashdee Dryer	Source Removed from Service		
24	UV Fill/Laminating Line Fugitive Emissions	Source Removed from Service		
27	Line 2 Reject Cyclones	PM	0.1	0.3
		PM ₁₀	0.1	0.3
		VOC	0.5	1.5
		Formaldehyde	0.26	0.82
		Methanol	0.20	0.64
28	Line 2 Former Vacuum	PM	0.1	0.3
		PM ₁₀	0.1	0.3
		VOC	0.5	1.5
		Formaldehyde	0.26	0.82
		Methanol	0.20	0.64
29	Line 2 Pneumatic Fiber Transport System	PM	0.1	0.5
		PM ₁₀	0.1	0.5
		VOC	3.1	11.9
		Acetone	0.07	0.19
		Acetaldehyde	0.07	0.20
		Formaldehyde	0.61	1.92
		Methanol	0.44	1.38
30	Lillie Boiler 78.4 MMBtu/hr	PM	0.6	2.7
		PM ₁₀	0.6	2.7
		SO ₂	0.1	0.5
		VOC	0.5	2.2
		CO	3.2	14.1
		NO _x	3.2	14.1
31	Saw Line Baghouse	Source Removed from Service (2006)		
32	Reclaim Silo Baghouse	PM	0.1	0.5
		PM ₁₀	0.1	0.5
33	Cooling Towers	PM	2.8	12.1
		PM ₁₀	2.8	12.1
34	Paved Road Emissions	PM	8.7	16.9
		PM ₁₀	1.7	3.3

* - 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.
 *** - VOC and HAP emissions from SN-22 and SN-22a are bubbled together. PM/PM₁₀ emissions are based on equipment capacity.

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SECTION III: PERMIT HISTORY

On July 23, 1982, the Department issued Permit #688-A to Willamette Industries. This permit allowed Willamette to convert an existing particleboard plant (formerly operated by International Paper) to a medium density fiberboard plant.

On April 16, 1987, the Department issued Permit #688-AR-1 to Willamette Industries. This permit allowed Willamette to increase capacity by adding a second process line. This line consisted of the following sources: an additional fiber dryer (SN-02B), former vacuum (SN-03B), mat reject area (SN-05B), and conveying system for the shave off area and fiber bin (SN-06B). In conjunction with these additions, Willamette deleted various sources (SN-01, SN-04, and SN-08) and replaced cyclones on SN-06A and SN-09 with more efficient fabric filters.

On February 1, 1990, the Department issued Permit #688-AR-2 to Willamette Industries. This permit allowed Willamette to add an Ultra Violet Fill Line Sander (SN-15) to its operation. The emission control equipment used with this source is a simple pneumatic fabric filter with an estimated control efficiency of 99%.

On August 1, 1997, the Department issued Permit #688-AR-3 to Willamette Industries. This permitting action included retroactive applicability of the Prevention of Significant Deterioration (PSD) regulations to the original installation of Line 2 in 1989. Line 1 was not subject to retroactive PSD review. The potential to emit for Line 1 was less than the 250 ton per year (tpy) threshold for all pollutants, as originally installed in 1982, and thus, this facility was a minor source prior to the installation of Line 2. Modifications at the facility included installation of best available control technology (BACT) on Line 2, removing boiler #2 (SN-10) from service, and allowing both digesters to be fed to the Line 1 fiber dryer.

All units on Line 2, including the original wood waste fired boiler, the flash tube dryer and the board press were required to install BACT for CO, NO_x, PM, and VOCs. Additionally, emission increases at several material handling or finishing operations, associated with the installation of Line 2, are also required to install BACT. The BACT analysis is summarized below.

Summary of BACT Determination		
Source Description	Pollutant	Control Technology
Original Line 2 Wood Waste Boiler	PM VOC NO _x CO	Remove boiler from service and replace with a waste heat recovery boiler which uses natural gas as a supplemental fuel.
Line 2 Fiber Dryer	PM VOC	Thermal Oxidizer
Line 2 Press Vents	PM	Permanent Total Enclosure and Baghouse
Line 2 Press Vents	VOC	No add on controls
Waste Heat Recovery Boiler	NO _x	Low NO _x burners
Waste Heat Recovery Boiler	CO	Good combustion practice

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Resin Storage Tanks	VOC	No add on controls
Mat Reject	PM	Baghouse
Line 2 Former Vacuum	PM	Baghouse
Line 2 Pneumatic Fiber Transport System	PM	Baghouse
Cleanup and Shaveoff System	PM	Baghouse (existing)
Fuel and Trim Silo	PM	Baghouse (existing)
Dry Silo	PM	Baghouse (existing)
UV Fill Sander	PM	Baghouse (existing)

On June 21, 2002 the Department issued Permit #688-AOP-R0. This modification included the following: emission rates at SN-26 were revised to reflect stack test results; SN-01 was replaced with a regenerative thermal oxidizer (RTO); emissions at SN-20 and SN-21 were routed to the inlet of the Line 1 and Line 2 dryers; and the emissions from SN-05 and SN-11 were revised to reflect the new mode of operation. Also, the Line 2 press enclosure baghouse exhaust was routed to the inlet of the Line 2 dryer, and the Line 1 press enclosure baghouse exhaust was routed to the inlet of the Line 1 dryer. Emissions from the facility were reduced to less than 250 tpy due to the addition of the RTO (SN-01) and the Electrified Filter Bed (SN-11).

On August 5, 2003 the Department issued Permit #688-AOP-R1. This modification allowed the facility to install a new natural gas fired Lillie Boiler (SN-30) to replace the L1 Wood-Fired Boiler (SN-05) that was destroyed by a cooling system failure. The installation did not increase the capacity of the facility. The facility also requested that SN-05 be removed from the permit. The new boiler is subject to NSPS Subpart Dc, *Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units*. Permitted PM/PM₁₀ and NO_x emissions decreased by 2.0 tpy and 27.8 tpy, respectively. Permitted SO₂, VOC, and CO emissions increased by 0.3 tpy, 1.3 tpy, and 3.6 tpy, respectively.

On June 24, 2004, the Department issued Permit #688-AOP-R2 to Weyerhaeuser. This permit modification was to install new natural gas fired burners at the Line 1 (SN-01) and Line 2 (SN-26) Dryers to replace the waste heat boiler and the steam coil heating system currently used. The emissions from the Line 1 Dryer burner exit through the SN-01 stack and the emissions from the Line 2 Dryer burner exit through the SN-26 stack. This installation did not increase the MDF throughput capacity of the facility. In addition, this permit modification allowed the replacement of the thermal oxidizer on the Line 2 Dryer (SN-26) with the Regenerative Catalytic Oxidizer (RCO). Natural gas usage substantially decreased with the use of the RCO technology. Line 1 Dryer was already equipped with an RTO. During the comment period, Weyerhaeuser requested that SN-17, SN-23, and SN-24 be removed from service. This permit modification incorporated the removal of those three sources. Total permitted SO₂, VOC, CO, NO_x, and formaldehyde emissions increased by 4.8 tons/year (tpy), 9.5 tpy, 36.8 tpy, 3.4 tpy, and 7.6 tpy, respectively. Total permitted PM/PM₁₀, methanol, phenol, styrene, and acetone emissions decreased by 5.7 tpy, 14.3 tpy, 0.1 tpy, 3.6 tpy, and 1.7 tpy, respectively.

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On May 19, 2005 Permit #688-AOP-R3 was issued to Weyerhaeuser. This permit modification allowed Weyerhaeuser to install a new saw line (SN-31) which is controlled by a baghouse (previously used to control the UV line) and add a new baghouse (SN-22a) to Line 1 reject cyclone and former vacuum. Emissions from the new baghouse (SN-22a) were combined with the other emissions from Line 1 (SN-22). SN-22a was proposed in order to alleviate some of current load on the SN-22 baghouse. No production increases were proposed with the modification at Line 1. Overall, this modification resulted in permitted annual emission increases of 1.9 tons of PM/PM₁₀, 0.3 tons of VOC, and 0.28 tons of combined HAPs (Methanol and Phenol).

Weyerhaeuser (formerly Willamette Industries, Inc.) was previously considered a major stationary source under the Prevention of Significant Deterioration (PSD) regulations as found in 40 CFR 52.21, because it had been permitted for VOC and NO_x emissions in excess of 250 tpy. With the issuance of Permit #688-AOP-R0 the facility was no longer classified as a major stationary source under PSD, due to installation of Regenerative Thermal Oxidizer (RTO) on Line 1 and lower annual emissions of VOC and NO_x. Therefore, these modifications in this permit were not subject to PSD.

On March 31, 2006 Permit #0688-AOP-R4 was issued to Flakeboard America, LLC. This permit modification allowed the following:

- The replacement of the existing baghouse SN-14 with a new baghouse with a better air-to-cloth ratio.
- The relocation of the existing SN-14 baghouse to control emissions from the Reclaim Silo Cyclone (SN-32).
- The addition of four existing cooling towers (SN-33) to the permit.
- The addition of two diesel pumps which will be used for emergency fire fighting.

Overall, the modification resulted in permitted annual emission increases of 12.2 tons of PM/PM₁₀.

On June 13, 2007 Permit #0688-AOP-R5 was issued to Flakeboard America, LLC. This was the first Title V renewal for the facility. With the renewal, Flakeboard submitted additional information that addressed all applicable requirements of 40 CFR 63, Subpart DDDD - National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products, 40 CFR 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. Additionally, Flakeboard requested the removal of the entire Saw Line from service, thus removing the Saw Line Baghouse (SN-31). Updated factors provided by the National Council for Air and Stream Improvement (NCASI) were used in calculating HAP emission rates. With the removal of SN-31 and updated emission factors, the renewal resulted in permitted annual emission decreases of 11.5 tpy of PM/PM₁₀ and 0.3 tpy of VOC.

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On February 4, 2008, Permit #0688-AOP-R6 was issued to Flakeboard America, LLC. Flakeboard requested the extension for the date of the testing requirements for one of the two thermal oxidizers (SN-01 or SN-26) from December 9, 2007 to no later than March 30, 2008. Additionally, Flakeboard requested the extension for the date requiring stack height extensions of SN-01 and SN-26 from December 9, 2007 to no later than March 30, 2008. Flakeboard also submitted an application for Routine Control Device Maintenance Exemption on August 30, 2007. Flakeboard did not wish to address any permitted emission increases at that time. Therefore, the Routine Control Device Maintenance Exemption application was not incorporated into the permit at that time. There were no permitted emission rate changes.

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SECTION IV: SPECIFIC CONDITIONS

SN-01 & SN-26

SN-01

Line 1 Fiber Dryer East & West Cyclones – RCO

Source Description

The fiber and air stream from each flash tube dryer (equipped with a 50 MMBTU/hr natural gas burner) is discharged into two large diameter high-efficiency cyclones. This exhaust then passes through a regenerative catalytic oxidizer.

SN-26

Line 2 Fiber Dryer Cyclones & Regenerative Catalytic Oxidizer

Source Description

The fiber mixture used to make the fiber board is flash dried in a 50 MMBtu/hr natural gas fired burner. Emissions from this process occur at this source. The catalytic oxidizer is fired by natural gas.

Specific Conditions

- The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions # 4, # 5, and # 6, and Plantwide Conditions # 8 and # 9. [Regulation 19, §19.501 et seq., and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr*	tpy*
01	Line 1 Fiber Dryer East & West Cyclones – RCO	PM ₁₀	17.3	30.3
&		SO ₂	2.0	5.6
26	Line 2 Fiber Dryer Cyclones & Regenerative Catalytic Oxidizer	VOC	26.7	71.0
		CO	85.4	213.3
		NO _x	56.9	136.8

* - SN-01 and SN-26 Emission rates are based upon maximum capacity and are bubbled together.

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2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions # 4, # 5, and # 6, and Plantwide Conditions # 8 and # 9. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr*	tpy*
01	Line 1 Fiber Dryer East & West Cyclones – RCO	PM	17.3	30.3
		Acetone	0.2	0.3
26	Line 2 Fiber Dryer Cyclones & Regenerative Catalytic Oxidizer	Acetaldehyde	0.2	0.2
		Formaldehyde	12.05	53.00
		Methanol	5.8	7.8
		MIBK	0.2	0.2
		Phenol	0.2	0.2

* - SN-01 and SN-26 Emission rates are based upon maximum capacity and are bubbled together.

3. Visible emissions from these sources shall not exceed 10% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition # 7. [Regulation 18, §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
4. Natural gas shall be the only fuel used in the Line 1 and Line 2 Dryer burners. [Regulation 19, §19.705; Regulation 18, §18.1004; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 70.6]
5. The permittee shall maintain a minimum 3-hr block average combustion chamber temperature of 1,000°F in the RCO for SN-01 and a temperature of 866°F in the RCO for SN-26. The temperature shall be recorded every 15 minutes and averaged over each 3-hr block. If the testing demonstrates different compliance thresholds are necessary to assure 90% destruction efficiency for captured VOCs, the permittee shall meet the thresholds necessary to assure compliance and submit an application to amend this permit within 90 days of completion of the testing. [Regulation 19, §19.705; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 70.6]
6. The pressure differential across the beds and annual catalytic activity tests shall be monitored as operational status indicators for the RCOs. The pressure differential shall be recorded every hour and averaged every 24-hour period. The catalytic activity test will be conducted annually to evaluate the oxidation potential of the RCO's catalytic media. [Regulation 19, §19.703; Regulation 18, §18.1003; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 70.6]

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SN-04
 Line 1 Weighed Fiber

Source Description

This baghouse is used to control emission from the air conveyance systems for Line 1.

The uncontrolled emissions from SN-04 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

7. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Line 1 Weighed Fiber	PM ₁₀	0.4	1.4
		VOC	0.5	1.7

8. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
04	Line 1 Weighed Fiber	PM	0.4	1.4
		Formaldehyde	0.23	0.94
		Methanol	0.18	0.73

9. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-09
 Cleanup and Shaveoff System – Pneumatic Fabric Filter

Source Description

Formed mats are trimmed to rough dimensions prior to pressing. This filter controls particulate emissions from these cleanup and shaveoff operations.

The uncontrolled emissions from SN-09 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

10. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
09	Cleanup and Shaveoff System	PM ₁₀	0.1	0.3
		VOC	0.5	1.5

11. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
09	Cleanup and Shaveoff System	PM	0.1	0.3
		Formaldehyde	0.26	0.82
		Methanol	0.20	0.64

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12. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-12
 Sawdust Pickup – Pneumatic Fabric Filter

Source Description

This baghouse controls emissions from the cut-up saw.

The uncontrolled emissions from SN-12 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

13. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
12	Sawdust Pickup	PM ₁₀	0.1	0.5
		VOC	2.3	2.9

14. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
12	Sawdust Pickup	PM	0.1	0.5
		Formaldehyde	0.02	0.09
		Methanol	1.59	2.04
		Phenol	0.63	0.82

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15. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-13
 Sander Pneumatic Fabric Filters – C-16 & C-17

Source Description

All rough panels are sanded before being sawed to finished dimensions. These baghouses are used to control particulate emissions from these sanding operations.

The uncontrolled emissions from SN-13 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

16. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
13	Sander Pneumatic Fabric Filters	PM ₁₀	0.5	2.1
		VOC	0.5	0.8

17. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
13	Sander Pneumatic Fabric Filters	PM	0.5	2.1
		Acetone	0.07	0.11
		Formaldehyde	0.04	0.05
		Methanol	0.15	0.23
		Phenol	0.28	0.45

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18. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-14
Trim & Fuel Silo Pneumatic Fabric Filter

Source Description

Emissions from the conveyance of hog material from the cut-up saw are controlled by this baghouse. In order to meet BACT standards for PM emissions, Flakeboard re-routed cyclone SN-15 to an existing pneumatic fabric filter (SN-14).

The uncontrolled emissions from SN-14 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

19. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
14	Trim & Fuel Silo	PM ₁₀	0.1	0.2

20. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
14	Trim & Fuel Silo	PM	0.1	0.2

21. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-16
Dry Shavings Pneumatic Fabric Filter

Source Description

This filter controls emissions from the pneumatic transfer of dry shavings at this facility.

The uncontrolled emissions from SN-16 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

22. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
16	Dry Shavings Pneumatic Fabric Filter	PM ₁₀	0.1	0.5

23. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
16	Dry Shavings Pneumatic Fabric Filter	PM	0.1	0.5

24. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-18
Refiner Reject-Startup Vault Cyclones

Source Description

Reject wood fiber generated during start-up and shutdown of the refiners is pneumatically conveyed to one of the Refiner Reject Vault Cyclones (SN-18) for recycle back in the process.

Specific Conditions

25. The permittee shall not exceed the emission rates set forth in the following table. The emissions are based on testing, and assumed to be worst case for the hourly emissions. The permittee shall demonstrate compliance with tpy emissions by complying with Specific Condition # 28. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
18	Refiner Reject-Startup Vault Cyclones	PM ₁₀	2.2	4.5

26. The permittee shall not exceed the emission rates set forth in the following table. The emissions are based on testing, and assumed to be worst case for the hourly emissions. The permittee shall demonstrate compliance with tpy emissions by complying with Specific Condition # 28. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
18	Refiner Reject-Startup Vault Cyclones	PM	2.2	4.5

27. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition # 7. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
28. The permittee shall not operate SN-18 more than 4,000 hours per consecutive twelve month period. Compliance shall be demonstrated through compliance with Specific Condition # 29. [Regulation 19, §19.705; Regulation 18, §18.1004; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 52 Subpart E]
29. The permittee shall maintain records of the amount of operational uptime through SN-18. These records shall be maintained on a monthly basis and updated monthly. These records shall be maintained on site and made available to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [Regulation 19, §19.705 and 40 CFR Part 52, Subpart E]

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SN-19
Raw Material Storage

Source Description

Green wood chips are stored in this outdoor pile prior to their use.

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 Specific Condition # 32. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
19	Raw Material Storage	PM ₁₀	0.1	0.1

31. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition # 32. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
19	Raw Material Storage	PM	0.1	0.1

32. The permittee shall not cause unnecessary amounts of air contaminants to become airborne. [Regulation 18, §18.901, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-22 & SN-22a
 Line 1 Reject and Former Vacuum – Pneumatic Fabric Filter

Source Description

These two baghouses control particulate emissions from Line 1.

The uncontrolled emissions from SN-22 and SN-22a fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned sources are regulated under the CAM Rule because they meet the following criteria: (1) each unit is subject to emission limitations for PM₁₀, (2) each source is equipped with a control device (i.e., baghouse, filter), and (3) each unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for these sources. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at each source.

Specific Conditions

33. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
22	Line 1 Reject and Former Vacuum	PM ₁₀	0.7	2.2
		VOC	0.5	1.0
22a	Line 1 Reject and Former Vacuum	PM ₁₀	0.4	1.5
		VOC	***	***

*** - VOC and HAP emissions from SN-22 and SN-22a are bubbled together. PM/PM₁₀ emissions are based on equipment capacity.

34. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
22	Line 1 Reject and Former Vacuum	PM	0.7	2.2
		Formaldehyde	0.23	0.53
		Methanol	0.18	0.41

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SN	Description	Pollutant	lb/hr	tpy
22a	Line 1 Reject and Former Vacuum	PM	0.4	1.5
		Formaldehyde	***	***
		Methanol	***	***

*** - VOC and HAP emissions from SN-22 and SN-22a are bubbled together. PM/PM₁₀ emissions are based on equipment capacity.

35. Visible emissions from these sources shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-27
 Line 2 Reject Cyclones – Pneumatic Fabric Filter

Source Description

This baghouse controls particulate emissions from Line 2.

The uncontrolled emissions from SN-27 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

36. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
27	Line 2 Reject Cyclones	PM ₁₀	0.1	0.3
		VOC	0.5	1.5

37. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
27	Line 2 Reject Cyclones	PM	0.1	0.3
		Formaldehyde	0.26	0.82
		Methanol	0.20	0.64

38. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-28
 Line 2 Former Vacuum – Pneumatic Fabric Filter

Source Description

This baghouse controls particulate emissions from Line 2.

The uncontrolled emissions from SN-28 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

39. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
28	Line 2 Former Vacuum	PM ₁₀	0.1	0.3
		VOC	0.5	1.5

40. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
28	Line 2 Former Vacuum	PM	0.1	0.3
		Formaldehyde	0.26	0.82
		Methanol	0.20	0.64

41. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-29
 Line 2 Pneumatic Fiber Transport System – Pneumatic Fabric Filter (2)

Source Description

This baghouse controls particulate emissions from Line 2 air conveyance system.

The uncontrolled emissions from SN-29 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

42. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
29	Line 2 Pneumatic Fiber Transport System	PM ₁₀	0.1	0.5
		VOC	3.1	11.9

43. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
29	Line 2 Pneumatic Fiber Transport System	PM	0.1	0.5
		Acetone	0.07	0.19
		Acetaldehyde	0.07	0.20
		Formaldehyde	0.61	1.92
		Methanol	0.44	1.38

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44. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-30
 Lillie Boiler

Source Description

The Lillie Boiler is used for Line 1 and Line 2 heating requirements. The boiler produces approximately 60,000 lb/hr of steam.

Specific Conditions

45. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition # 48. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
30	Lillie Boiler	PM ₁₀	0.6	2.7
		SO ₂	0.1	0.5
		VOC	0.5	2.2
		CO	3.2	14.1
		NO _x	3.2	14.1

46. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition # 48. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
30	Lillie Boiler	PM	0.6	2.7

47. The permittee shall not cause to be discharged to the atmosphere from the Lillie Boiler gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Appendix A. Compliance shall be demonstrated by only emitting products of combustion of natural gas in the Lillie Boiler (SN-30). [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
48. The permittee shall not combust more than 701 MMft³ of natural gas at this source per consecutive twelve month period. Compliance shall be demonstrated through compliance with Specific Condition # 49. [Regulation 19, §19.705; Regulation 18,

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§18.1004; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 52 Subpart E]

NSPS Requirements

49. The permittee shall comply with all applicable regulations under 40 CFR Part 60, Subpart Dc (Appendix A). The permittee shall maintain records of the amount of natural gas combusted. These records shall be maintained on a monthly basis and updated monthly. A copy of these records shall be submitted in accordance with General Provision # 7. The permittee is required to maintain these records for at least two years. [Regulation 19, §19.304 and 40 CFR Part 60, Subpart Dc]

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SN-32
Reclaim Silo Baghouse

Source Description

Emissions from the cut-up saw are controlled by this baghouse.

The uncontrolled emissions from SN-32 fulfill the applicability criteria of the Compliance Assurance Monitoring (CAM) Rule (40 Code of Federal Regulations (CFR) Part (§) 64). Accordingly, the (CAM) Plan for the facility is provided in Appendix D. Per §64.2(a), the aforementioned source is regulated under the CAM Rule because it meets the following criteria: (1) the unit is subject to emission limitations for PM₁₀, (2) the source is equipped with a control device (i.e., baghouse, filter), and (3) the unit has potential pre-control emissions of PM₁₀ that exceed the applicable major source threshold (i.e., 100 tons per year). In accordance with §64.3, Flakeboard America, LLC has developed a CAM Plan for this source. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM₁₀ emission limit at this source.

Specific Conditions

50. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
32	Reclaim Silo	PM ₁₀	0.1	0.5

51. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on testing and are assumed to be worst case. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
32	Reclaim Silo	PM	0.1	0.5

52. Visible emissions from this source shall not exceed 5% opacity. Compliance shall be demonstrated through compliance with Plantwide Conditions # 7 and # 27. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-33
Cooling Towers

Source Description

The facility utilizes four cooling towers, each rated at 600 gpm. The cooling towers are seldom run during the winter months, and all four operate at once only during the summer months.

Specific Conditions

53. The permittee shall not exceed the emission rates set forth in the following table. Emissions from these sources have been calculated based on the maximum capacity of each unit. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
33	Cooling Towers	PM ₁₀	2.8	12.1

54. The permittee shall not exceed the emission rates set forth in the following table. Emissions from these sources have been calculated based on the maximum capacity of each unit. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
33	Cooling Towers	PM	2.8	12.1

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SN-34
Paved Road Emissions

Source Description

Various paved haul roads are used to transport raw materials and finished products at the facility.

Specific Conditions

55. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on maximum capacity and are assumed to be worst case. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
34	Paved Road Emissions	PM ₁₀	1.7	3.3

56. The permittee shall not exceed the emission rates set forth in the following table. Emission limits are based on maximum capacity and are assumed to be worst case. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
34	Paved Road Emissions	PM	8.7	16.9

57. The permittee shall not operate in a manner such that fugitive emissions from the roads (SN-34) 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. The permittee shall use water sprays or other techniques as necessary to control fugitive emissions. [Regulation 18, §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SECTION V: COMPLIANCE PLAN AND SCHEDULE

Stack testing showed that actual emissions exceeded permitted emission rates. Issuance of this permit will bring Flakeboard America, LLC in compliance with applicable regulations.

Flakeboard America, LLC 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 A.C.A. §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 start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) 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 A.C.A. §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 A.C.A. §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 A.C.A. §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 A.C.A. §8-4-304 and §8-4-311]
7. The permittee shall conduct weekly observations of the opacity from the emission units at this facility and keep a record of these observations. If visible emissions appear to exceed those allowed in this permit, the permittee shall take corrective action and

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perform the observation again. If visible emissions still appear to exceed allowable limits, the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method #9. The results of these readings shall be kept on site 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]

8. The combined wood fiber material throughput at SN-01 and SN-26 shall not exceed 302,622.6 tons per consecutive twelve month period. Compliance shall be demonstrated through compliance with Plantwide Condition # 10. [Regulation 19, §19.705; Regulation 18, §18.1004; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 52 Subpart E]
9. The permittee shall not produce more than 205 million square feet of MDF (3/4 inch basis) per consecutive twelve month period at SN-01 and SN-26 combined. Compliance shall be demonstrated through compliance with Plantwide Condition # 10. [Regulation 19, §19.705; Regulation 18, §18.1004; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 52 Subpart E]
10. The permittee shall maintain records of the amount of material throughput and the amount of MDF produced at SN-01 and SN-26. These records shall be maintained on a monthly basis and updated monthly. These records shall be maintained on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision # 7. [Regulation 19, §19.705 and 40 CFR Part 52, Subpart E]

NESHAP Requirements

11. The permittee shall comply with the compliance options, operating requirements, and work practice requirements for 40 CFR 63, Subpart DDDD no later than October 1, 2008. [Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2233(b)]
12. The permittee shall comply with the compliance options as outlined in 40 CFR 63.2240. These requirements include, but are not limited to, the following:
 - a. For production-based compliance options, the permittee 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. The permittee may not use an add-on control system or wet control device to meet the production-based compliance options; or
 - b. For add-on control systems compliance options, the permittee 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 Subpart DDDD. If the permittee owns or operates a reconstituted wood product press, and

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chooses 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), the permittee 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; or

- c. For emissions averaging compliance option, the permittee must demonstrate that emissions included in the emissions average meet the compliance options and operating requirements, using the procedures outlined in 40 CFR 63.2240(c)(1) through (c)(3).

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2240(a) through (c)]

13. The permittee shall comply with all applicable work practices requirements in Table 3 of Subpart DDDD. [Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2241(a)]
14. The permittee shall comply with the general compliance requirements as outline in 40 CFR 63.2250. The general compliance requirements include, but are not limited to, the following:
 - a. 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 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. The permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
 - c. The permittee must develop a written SSMP according to the provisions in §63.6(e)(3).

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2250(a) through (c)]

15. The permittee shall comply with the routine control device maintenance exemption as outlined in 40 CFR 63.2251. These requirements include, but are not limited to, the following:

- a. The permittee 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. The 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 the permittee plans to make reasonable efforts to minimize emissions during the maintenance, and provide any other documentation required by the EPA Administrator.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2251(a)]

16. The permittee shall comply with the initial compliance requirements as outlined in 40 CFR 63.2260. These requirements include, but are not limited to, the following:
 - a. To demonstrate initial compliance with the compliance options and operating requirements, the permittee must conduct performance tests and establish each site-specific operating requirement in Table 2 of Subpart DDDD according to the requirements in §63.2262 and Table 4 Subpart DDDD. Combustion units that accept process exhausts into the flame zone are exempt from the initial performance testing and operating requirements for thermal oxidizers.
 - b. The permittee must demonstrate initial compliance with each compliance option, operating requirement, and work practice requirement that applies to the facility according to Tables 5 and 6 to this subpart and according to §63.2260 through §63.2269 of this subpart.
 - c. The permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.2280(d).

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2260(a) through (c)]

17. The permittee shall conduct performance tests upon initial startup or no later than 180 calendar days after the compliance date that is specified for each source in §63.2233 and according to §63.7(a)(2), whichever is later. [Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2261(a)]

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18. The permittee shall 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 each source in §63.2233, whichever is later. [Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2261(b)]

19. The permittee shall conduct performance tests and establish operating requirements as outlined in 40 CFR 63.2262. These requirements include, but are not limited to, the following:

- a. The permittee must conduct each performance test according to the requirements in §63.7(e)(1), the requirements in paragraphs (b) through (o) of §63.2262, and according to the methods specified in Table 4 Subpart DDDD.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2262(a)]

20. The permittee 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 of Subpart DDDD. The permittee 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 the Notification of Compliance Status. [Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2267]

21. The permittee shall comply with all monitoring installation, operation, and maintenance requirements of 40 CFR 63.2269. These requirements include, but are not limited to, the following:

- a. The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to paragraphs (a)(1) through (3) of §63.2269.
- b. For each temperature monitoring device, the permittee must meet the requirements in paragraphs (a) and (b)(1) through (6) of §63.2269.
- c. Each CEMS must be installed, operated, and maintained according to paragraphs (d)(1) through (4) of §63.2269.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2269(a),(b), and (d)]

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22. The permittee shall comply with all continuous compliance requirements of 40 CFR 63.2270 and 40 CFR 63.2271. These requirements include, but are not limited to, the following:
- a. The permittee must monitor and collect data according to §63.2270.
 - b. The permittee must demonstrate continuous compliance with the all applicable compliance options, operating requirements, and work practice requirements in §63.2240 and §63.2241 according to the methods specified in Tables 7 and 8 to Subpart DDDD.
 - c. The permittee must report each instance in which the permittee did not meet each compliance option, operating requirement, and work practice requirement in Tables 7 and 8 of Subpart DDDD that applies to the permittee. This includes periods of startup, shutdown, and malfunction and periods of control device maintenance specified in paragraphs (b)(1) through (3) of §63.2271. 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.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; 40 CFR Part 63 Subpart DDDD §63.2270(a), and §63.2271(a) and (b)]

23. The permittee shall comply with all notifications requirements of 40 CFR 63.2280. These requirements include, but are not limited to, the following:
- a. The permittee 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. The permittee 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. The permittee 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. The permittee is required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Tables 4, 5, and 6 to Subpart DDDD, the permittee must submit a Notification of Compliance Status as specified in §63.9(h)(2)(ii).
 - e. For each initial compliance demonstration required in Table 5 or 6 to Subpart DDDD that does not include a performance test, the permittee 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.
 - f. For each initial compliance demonstration required in Tables 5 and 6 to Subpart DDDD that includes a performance test conducted according to the requirements in Table 4 to Subpart DDDD, the permittee must submit the Notification of Compliance Status, including the performance test results, before the close of

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business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2).

- g. The permittee must notify the EPA Administrator within 30 days before Flakeboard takes any of the actions specified in the following paragraphs:
 - i. Flakeboard modifies or replaces the control system for any process unit subject to the compliance options and operating requirements of Subpart DDDD;
 - ii. Flakeboard shuts down any process unit included in its Emissions Averaging Plan; or
 - iii. Flakeboard changes a continuous monitoring parameter or the value or range of values of a continuous monitoring parameter for any process unit or control device.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2280(a) through (e) and (g)]

24. The permittee shall comply with the reporting requirements of 40 CFR 63.2281. These requirements include, but are not limited to, the following:
 - a. The permittee must submit each report in Table 9 of Subpart DDDD that applies to Flakeboard.
 - b. Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), the permittee must submit each report by the date in Table 9 of Subpart DDDD and as specified in paragraphs (b)(1) through (5) of §63.2281.
 - c. The compliance report must contain the information in paragraphs (c)(1) through (8) of §63.2281.
 - d. For each deviation from a compliance option or operating requirement and for each deviation from the work practice requirements in Table 8 of Subpart DDDD that occurs at an affected source where the permittee is not using a CMS to comply with the compliance options, operating requirements, or work practice requirements in Subpart DDDD, the compliance report must contain the information in paragraphs (c)(1) through (6) of §63.2281 and in paragraphs (d)(1) and (2) of §63.2281. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.
 - e. For each deviation from a compliance option or operating requirement occurring at an affected source where the permittee is using a CMS to comply with the compliance options and operating requirements in Subpart DDDD, the permittee must include the information in paragraphs (c)(1) through (6) and paragraphs

(e)(1) through (11) of §63.2281. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

- f. If the permittee complies with the emissions averaging compliance option in §63.2240(c), the permittee must include in its 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 Subpart DDDD 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 Subpart DDDD, 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.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2281(a) through (g)]

- 25. The permittee shall comply with the record keeping requirements of 40 CFR 63.2282 and 40 CFR 63.2283. These requirements include, but are not limited to, the following:
 - a. The permittee must keep the records listed in (a)(1) through (4) of §63.2282.
 - b. The permittee must keep the records required in Tables 7 and 8 of Subpart DDDD to show continuous compliance with each compliance option, operating requirement, and work practice requirement that apply to the permittee.
 - c. For each CEMS, the permittee must keep the records listed in (c)(1) through (4) of §63.2282.
 - d. If the permittee complies with the emissions averaging compliance option in §63.2240(c), the permittee must keep records of all information required to calculate emission debits and credits.
 - e. If the permittee operates a catalytic oxidizer, the permittee must keep records of annual catalyst activity checks and subsequent corrective actions.

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- f. Flakeboard's records must be in a form suitable and readily available for expeditious review as specified in §63.10(b)(1).
- g. As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- h. The permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years.

[Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2282 and §63.2283]

- 26. The permittee shall comply with any applicable general provisions as outlined in Table 10 of Subpart DDDD. [Regulation 19, §19.304; A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR Part 63 Subpart DDDD §63.2290]

CAM Requirements

- 27. The permittee shall comply with the CAM plan outlined in Appendix D for sources SN-04, SN-09, SN-12, SN-13, SN-14, SN-16, SN-22, SN-22a, SN-27, SN-28, SN-29, and SN-32, with an indicator range of less than five percent (5%) opacity. [§19.304, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 64]

Title VI Provisions

- 28. 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.
- 29. 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]

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- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC like appliance” as defined at §82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
30. 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.
31. 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.
32. 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.

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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 November 1, 2006.

Description	Category
Resins Tanks	Group A-13
Gasoline Storage Tank (1,000 gallon)	Group A-13
Firewater Pumps	Group A-13
Woodwaste Loadout	Group A-13
Portable Air Compressor	Group A-12
Associated 300 gallon Diesel Storage Tank	Group 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 §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26)]
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 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 within thirty (30) days of 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 C.F.R. 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 A.C.A. §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 within 30 days following the last day of the anniversary month of the initial Title V permit. 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 A.C.A. §8-4-304 and §8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
 - a. Such an extension does not violate a federal requirement;
 - b. The permittee demonstrates the need for the extension; and
 - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

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[Regulation 18, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 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, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 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, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]

APPENDIX A

40 CFR 60 Dc

*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating
Units*

Environmental Protection Agency

§ 60.40c

following the end of the reporting period.

(x) Facility-specific NO_x standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:

(1) *Standard for nitrogen oxides.* (i) When fossil fuel alone is combusted, the NO_x emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_x emission limit is 215 ng/J (0.5 lb/MMBtu).

(2) *Emission monitoring for nitrogen oxides.* (i) The NO_x emissions shall be determined by the compliance and performance test methods and procedures for NO_x in § 60.46b.

(ii) The monitoring of the NO_x emissions shall be performed in accordance with § 60.48b.

(3) *Reporting and recordkeeping requirements.* (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by § 60.49b(i).

(ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of § 60.49b.

(y) Facility-specific NO_x standard for INEOS USA's AOGI located in Lima, Ohio:

(1) *Standard for NO_x.* (i) When fossil fuel alone is combusted, the NO_x emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When fossil fuel and chemical by-product/waste are simultaneously combusted, the NO_x emission limit is 645 ng/J (1.5 lb/MMBtu).

(2) *Emission monitoring for NO_x.* (i) The NO_x emissions shall be determined by the compliance and performance test methods and procedures for NO_x in § 60.46b.

(ii) The monitoring of the NO_x emissions shall be performed in accordance with § 60.48b.

(3) *Reporting and recordkeeping requirements.* (i) The owner or operator of

the AOGI shall submit a report on any excursions from the limits required by paragraph (y)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the AOGI shall keep records of the monitoring required by paragraph (y)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the AOGI shall perform all the applicable reporting and recordkeeping requirements of this section.

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

SOURCE: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart GG or KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not covered by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not covered by this subpart.

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of cre-

ating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).

Dry flue gas desulfurization technology means a SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the

combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or ex-

haust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system.

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This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.42c Standard for sulfur dioxide (SO₂).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other

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fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO₂ emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO₂ emissions limit or the 90 percent SO₂ reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO₂ emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 50 percent (0.50) of the potential SO₂ emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50

percent SO₂ reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applica-

ble to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the following:

(1) The percent of potential SO₂ emission rate or numerical SO₂ emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s = SO₂ emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a = 520 ng/J (1.2 lb/MMBtu);

K_b = 260 ng/J (0.60 lb/MMBtu);

K_c = 215 ng/J (0.50 lb/MMBtu);

H_a = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c K_aH_b = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO₂ emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO₂ emission rate; and

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(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO₂ control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the

atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except

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for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat

input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this section.

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

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(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO₂ emission limits under §60.42c is based on the average percent reduction and the average SO₂ emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO₂ emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO₂ emission rate (E_{ho}) and the 30-day average SO₂ emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho0}) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted E_{ao} (E_{ao0}). The E_{ho0} is computed using the following formula:

$$E_{ho0} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E_{ho0} = Adjusted E_{ho}, ng/J (lb/MMBtu);

E_{ho} = Hourly SO₂ emission rate, ng/J (lb/MMBtu);

E_w = SO₂ concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO₂ emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO₂ emission rate is computed using the following formula:

$$\%P_s = 100 \left(1 - \frac{\%R_g}{100} \right) \left(1 - \frac{\%R_f}{100} \right)$$

Where:

%P_s = Potential SO₂ emission rate, in percent;

%R_g = SO₂ removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

%R_f = SO₂ removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the %P_s, an adjusted %R_g (%R_{g0}) is computed from E_{ao0} from paragraph (e)(1) of this section and an adjusted average SO₂ inlet rate (E_{ai0}) using the following formula:

$$\%R_{g0} = 100 \left(1 - \frac{E_{ao}^o}{E_{ai}^o} \right)$$

Where:

%R_{g0} = Adjusted %R_g, in percent;

E_{ao0} = Adjusted E_{ao}, ng/J (lb/MMBtu); and

E_{ai0} = Adjusted average SO₂ inlet rate, ng/J (lb/MMBtu).

(ii) To compute E_{ai0}, an adjusted hourly SO₂ inlet rate (E_{ni0}) is used. The

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E_{hi0} is computed using the following formula:

$$E_{hi0} = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

- E_{hi0} = Adjusted E_{hi} , ng/J (lb/MMBtu);
- E_{hi} = Hourly SO_2 inlet rate, ng/J (lb/MMBtu);
- E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w = 0$; and
- X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested

at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating %P_s and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P_s or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3 of appendix A of this part shall be used for gas analysis when applying Method 5, 5B, or 17 of appendix A of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C

(320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ± 14 °C (320 ± 25 °F).

(6) For determination of PM emissions, an oxygen (O₂) or carbon dioxide (CO₂) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O₂ or CO₂ measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A of this part (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the

initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with EPA Reference Method 5, 5B, or 17 of appendix A of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using EPA Method 5, 5B, or 17 of appendix A of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(13) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial start-up of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using

EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (d)(7)(1) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (d)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (d)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O₂ (or CO₂) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraph (d)(7)(1) of this section.

(i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.

(ii) For O₂ (or CO₂), EPA reference Method 3, 3A, or 3B of appendix A of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under § 60.43c(e)(4) shall follow the applicable procedures under § 60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO₂ emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO₂ concentrations and either O₂ or CO₂ concentrations at the outlet of the SO₂ control device (or the outlet of the steam generating unit if no SO₂ control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO₂ concentrations and either O₂ or CO₂ concentrations at both the inlet and outlet of the SO₂ control device.

(b) The 1-hour average SO₂ emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO₂ emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under § 60.13(h)(2). Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO₂ CEMS at the inlet to the SO₂ control device shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted, and the span value of the SO₂ CEMS at the outlet from the SO₂ control device shall be 50 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO₂ CEMS at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content

and heat content according to the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO₂ at the inlet or outlet of the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO₂ and CO₂ measurement train operated at the candidate location and a second similar train operated according to the procedures in § 3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the

stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under § 60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All COMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J

(0.06 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO₂ or PM emissions are not required to operate a CEMS for measuring opacity if they follow the applicable procedures under § 60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in § 60.45c(d). The CEMS specified in paragraph § 60.45c(d) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) An affected facility that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO₂, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS for measuring opacity. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section.

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must

§ 60.48c

be used to calculate each 1-hour average.

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An affected facility that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated permitting authority is not required to operate a COMS for measuring opacity. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facil-

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ity indicative of compliance with the opacity standard.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO₂ emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) The owner or operator of each coal-fired, oil-fired, or wood-fired affected facility subject to the opacity limits under § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period.

(d) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO₂ emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO₂ emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO₂ or diluent (O₂ or CO₂) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c; and

(iii) The sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at

the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each

steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

Subpart E—Standards of Performance for Incinerators

§60.50 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

(c) Any facility covered by subpart Cb, Eb, AAAA, or BBBB of this part is not covered by this subpart.

(d) Any facility covered by an EPA approved State section 111(d)/129 plan implementing subpart Cb or BBBB of this part is not covered by this subpart.

(e) Any facility covered by subpart FFF or JJJ of part 62 of this title (Federal section 111(d)/129 plan implementing subpart Cb or BBBB of this part) is not covered by this subpart.

[42 FR 37936, July 25, 1977, as amended at 71 FR 27335, May 10, 2006]

APPENDIX B

40 CFR 63 DDDD

National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products

Citation	Subject	Applicable to subpart CCCC?
§ 63.10	Recordkeeping and Reporting Requirements	1. For § 63.10(b)(2)(i)-(v), (c)(9)-(15), and (d)(5), requirements for startup, shutdown, and malfunctions apply only to malfunctions. 2. § 63.10(b)(2)(vii) and (c)(1)-(6) do not apply, instead specified in this subpart. 3. § 63.10(c)(7)-(8), (d)(3), (e)(2)(ii)-(4), (e)(3)-(4) do not apply. 4. Otherwise, all apply.
§ 63.11	Flares	No.
§ 63.12	Delegation	Yes.
§ 63.13	Addresses	Yes.
§ 63.14	Incorporation by Reference	Yes.
§ 63.15	Availability of Information	Yes.

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, except for facilities that the Environmental Protection Agency (EPA) determines are part of the low-risk subcategory of PCWP manufacturing facilities as specified in appendix B to this subpart.

(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.

§ 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, 2008.

(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, 2008 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 § 63.2280 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]

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.

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

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

$$AMR \geq RMR \quad (\text{Eq. 3})$$

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 uncon-

trolled 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 (vi) 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.

[69 FR 46011, July 30, 2004, as amended at 71 FR 8372, Feb. 16, 2006; 71 FR 20463, Apr. 20, 2006]

§ 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

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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 sys-

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tems 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 (ppmv). 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:

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

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:

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

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:

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

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 oper-

ates 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:

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

Where:

SW_% = annual volume percent softwood species dried;

SW = softwood veneer dried during the previous 12 months, thousand square feet (¾-inch basis);

T = total softwood and hardwood veneer dried during the previous 12 months, thousand square feet (¾-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.

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(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 any time 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 rec-

ommended 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:

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

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

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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.

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

Where:

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

PU_p = Process unit uptime for the previous semiannual compliance period;

PU_c = Process unit uptime for the current semiannual compliance period;

DT_p = 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)(viii).

(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 on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

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 (5) 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.

(5) Approval of PCWP sources demonstrations of eligibility for the low-risk subcategory developed according to appendix B of this subpart.

§ 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/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.

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-leaved 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 square feet (92.9 square meters). Square footage of panels is usually measured on a thickness basis, such as $\frac{3}{8}$ -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 re-dryers (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.

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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

For the following process units . . .	You must meet the following production-based compliance option (total HAP* basis) . . .
(1) Fiberboard mat dryer heated zones (at new affected sources only)	0.022 lb/MSF 1/2".
(2) Green rotary dryers	0.058 lb/ODT.
(3) Hardboard ovens	0.022 lb/MSF 1/4".
(4) Press predryers (at new affected sources only)	0.037 lb/MSF 1/2".
(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".
(8) Reconstituted wood product presses	0.30 lb/MSF 3/4".
(9) Softwood veneer dryer heated zones	0.022 lb/MSF 3/8".
(10) Rotary strand dryers	0.18 lb/ODT.
(11) Secondary tube dryers	0.010 lb/ODT.

* 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

For each of the following process units . . .	You must comply with one of the following six compliance options by using an emissions control system . . .
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)*, by 90 percent; or (2) Limit emissions of total HAP, measured as THC (as carbon)*, 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.

* 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 fire-box temperature above the minimum temperature established during the performance test.	Maintain the 3-hour block average THC concentration* 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* 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* in the biofilter exhaust below the maximum concentration established during the performance test.

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If you operate a(n) . . .	You must . . .	Or you must . . .
(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* 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* in the process unit exhaust below the maximum concentration established during the performance test.

* 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. 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).
(3) Softwood veneer dryers	
(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 in calculation of an emissions average under § 63.2240(c).	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)).
(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.

For . . .	You must . . .	Using . . .
(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 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).	meet the design specifications included in the definition of wood products enclosure in § 63.2292; or determine the percent capture efficiency of the enclosure directing emissions to an add-on control device.	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 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.
(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.	determine the percent capture efficiency	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.
(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).	establish the site-specific operating requirements (including the parameter limits or THC concentration limits) in table 2 to this subpart.	data from the parameter monitoring system or THC CEMS and the applicable performance test method(s).

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TABLE 5 TO SUBPART DDDD OF PART 63—PERFORMANCE TESTING AND INITIAL COMPLIANCE DEMONSTRATIONS FOR THE COMPLIANCE OPTIONS AND OPERATING REQUIREMENTS

For each . . .	For the following 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.
(5) Process unit listed in Table 1B to this subpart.	Limit methanol or formaldehyde emissions to less than or equal to 1 ppmvd (if uncontrolled emissions are greater than or equal to 10 ppmvd).	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.
(6) Reconstituted wood product press at a new or existing affected source, or reconstituted wood product board cooler at a new affected source.	Compliance options in Tables 1A and 1B to this subpart or the emissions averaging compliance option in § 63.2240(c).	You submit the results of capture efficiency verification using the methods in Table 4 to this subpart with your Notification of Compliance Status.
(7) Process unit listed in Table 1B to this subpart controlled by routing exhaust to a combustion unit.	Compliance options in Table 1B to this subpart or the emissions averaging compliance option in § 63.2240(c).	You submit with your Notification of Compliance Status documentation showing that the process exhausts controlled enter into the flame zone of your combustion unit.

For each . . .	For the following compliance options and operating requirements . . .	You have demonstrated initial compliance if . . .
(8) 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).	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.

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

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.

For . . .	For the following compliance options and operating requirements . . .	You must demonstrate continuous compliance by . . .
(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 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.

For . . .	For the following work practice requirements . . .	You must demonstrate continuous compliance by . . .
(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 (ii) The information in § 63.10(d)(5)(ii)	By fax or telephone within 2 working days after starting actions inconsistent with the plan. 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 part 63 standards.	Yes.
§ 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].		

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Citation	Subject	Brief description	Applies to subpart DDDD
§ 63.6(e)(1)-(2)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 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 Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing.	Yes.
§ 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.

Citation	Subject	Brief description	Applies to subpart DDDD
§ 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.

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Citation	Subject	Brief description	Applies to subpart DDDD
§ 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 best available control technology/lowest achievable emission rate.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 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.

Citation	Subject	Brief description	Applies to subpart DDDD
§ 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 copies of COMS performance evaluation.	Yes.
§ 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 deter-

mination of capture efficiency for enclosures around hot presses and is an alternative to the construction of temporary total enclosures (TTE). Sulfur hexafluoride (SF₆) 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 SF₆.

2.0 SUMMARY OF METHOD

A constant mass flow rate of SF₆ 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 SF₆ 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 SF₆ 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 SF₆ at the control device inlet. Through calculation of the mass of SF₆ released through the manifolds and the mass of SF₆ 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 SF₆ 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 SF₆ entering the control device divided by the weight per unit time of SF₆ 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 ± 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 measuring SF₆ 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 SF₆ 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 SF₆ as the tracer gas. The manufacturer of the SF₆ 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 SF₆ diluted with nitrogen should be used; based on experience and calculations, pure SF₆ 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 SF₆ with the prior approval of the EPA Administrator. If you use an approved tracer gas other than SF₆, all references to SF₆ in this protocol instead refer to the approved tracer gas.

7.2 Calibration Gases. The SF₆ 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 SF₆ 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 SF₆ 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 SF₆ 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 SF₆ 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 SF₆ 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 approxi-

mate 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 SF₆ 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 SF₆ 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.

8.6.1 Location of Ambient Samples Outside the Enclosure (Optional). In selecting the sampling locations for collecting sam-

ples of the ambient air surrounding the enclosure, consider potential leak points, the direction of the release, and laminar flow characteristics in the area surrounding the enclosure. Samples should be collected from all sides of the enclosure, downstream in the prevailing room air flow, and in the operating personnel occupancy areas.

8.6.2 Collection of Ambient Samples (Optional). During the tracer gas release, collect ambient samples from the area surrounding the enclosure perimeter at predetermined location using disposable syringes or some other type of containers that are non-absorbent, inert, and that have low permeability (*i.e.*, polyvinyl fluoride film or polyester film sample bags or polyethylene, polypropylene, nylon or glass bottles). The use of disposable syringes allows samples to be injected directly into a gas chromatograph. Concentration measurements taken around the perimeter of the enclosure provide evidence of capture performance and will assist in the identification of those areas of the enclosure that are performing less efficiently.

8.6.3 Analysis and Storage of Ambient Samples (Optional). Analyze the ambient samples using an analytical instrument calibrated and operated according to the procedures in this appendix or ASTM E 260 and ASTM E 697. Samples may be analyzed immediately after a sample is taken, or they may be stored for future analysis. Experience has shown no degradation of concentration in polypropylene syringes when stored for several months as long as the needle or syringe is plugged. Polypropylene syringes should be discarded after one use to eliminate the possibility of cross contamination of samples.

9.0 QUALITY CONTROL

9.1 Sampling, System Leak Check. A sampling system leak check should be conducted prior to and after each test run to ensure the integrity of the sampling system.

9.2 Zero and Calibration Drift Tests.

Section	Quality control measure	Effect
8.5.4	Zero and calibration drift tests	Ensures that bias introduced by drift in the measurement system output during the run is no greater than 3 percent of span.

10.0 CALIBRATION AND STANDARDIZATION

10.1 Control Device Inlet Air Flow Rate Measurement Equipment. Follow the equipment calibration requirements specified in Methods 2, 3, and 4 (appendix A to 40 CFR part 60) for measuring the velocity, molecular weight, and moisture of the control device inlet air.

10.2 Tracer Gas Injection Rate. A dry gas volume flow meter, mass flow meter, or ori-

fice can be used to measure the tracer gas injection flow rate. The selected flow measurement device must have an accuracy of greater than ±5 percent at the field operating range. Prior to the test, verify the calibration of the selected flow measurement device using either a wet test meter, spirometer, or liquid displacement meter as the calibration device. Select a minimum of two flow rates to bracket the expected field operating range of the flow meter. Conduct three calibration

runs at each of the two selected flow rates. For each run, note the exact quantity of gas as determined by the calibration standard and the gas volume indicated by the flow meter. For each flow rate, calculate the average percent difference of the indicated flow compared to the calibration standard.

10.3 Spectrometer. Follow the calibration requirements specified by the equipment manufacturer for infrared spectrometer measurements and conduct the pretest calibration error test specified in section 8.5.1. Note: if using an FTIR analytical instrument see Method 320, section 10 (appendix A to 40 CFR part 63).

10.4 Gas Chromatograph. Follow the pretest calibration requirements specified in section 8.5.1.

10.5 Gas Chromatograph for Ambient Sampling (Optional). For the optional ambient sampling, follow the calibration requirements specified in section 8.5.1 or ASTM E 260 and E 697 and by the equipment manufacturer for gas chromatograph measurements.

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 ≤ 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:

$$((Q_{T-MIN} \times 0.8)/Q_E) \times (C_T + 100) \times 10^6 = MML$$

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

Where:

Q_{T-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 (SF₆) concentration in gas blend, percent by volume;

MML = minimum measured level, ppmv = 10 × 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:

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

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

Where:

Q_{T-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 SF₆ in nitrogen;

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

MML = 10 × IR_{DL} = 0.10 ppmv;

Span value = 0.40 ppmv;

Q_T = ?

Minimum tracer gas volumetric flow rate:

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

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

Maximum tracer gas volumetric flow rate:

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

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

In this example, the estimated total volumetric flow rate of the two percent SF₆ 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:

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$$\text{Err} = |C_{\text{std}} - C_{\text{meas}}| \text{verbar}; + C_{\text{std}} \times 100$$

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:

$$D = | \text{verbar}; C_{\text{initial}} - C_{\text{final}} | \text{verbar}; + C_{\text{span}} \times 100$$

Where:

D = calibration drift, percent;

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

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

C_{span} = span value, ppmv.

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

$$\text{CE} = (\text{SF}_{6\text{-CD}} + \text{SF}_{6\text{-INJ}}) \times 100$$

Where:

CE = capture efficiency;

$\text{SF}_{6\text{-CD}}$ = mass of SF_6 measured at the inlet to the CD;

$\text{SF}_{6\text{-INJ}}$ = mass of SF_6 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 ± 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 ± 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 SF₆ Air Products and Chemicals, Inc. Website: www3.airproducts.com. October 2001.

17.0 TABLES, DIAGRAMS, FLOWCHARTS, AND VALIDATION DATA

TABLE 1 TO APPENDIX A TO SUBPART DDDD OF 40 CFR PART 63—SUMMARY OF CRITICAL PHYSICAL MEASUREMENTS FOR ENCLOSURE TESTING

Measurement	Measurement instrumentation	Measurement frequency	Measurement site
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). <ul style="list-style-type: none"> • Velocity sensor (Manometer/Pitot tube). • Thermocouple • Midget Impinger sampler • Orsat or Fyrite 	Each test run for velocity (minimum); Daily for moisture and molecular weight.	Inlet duct to the control device (outlet duct of enclosure).

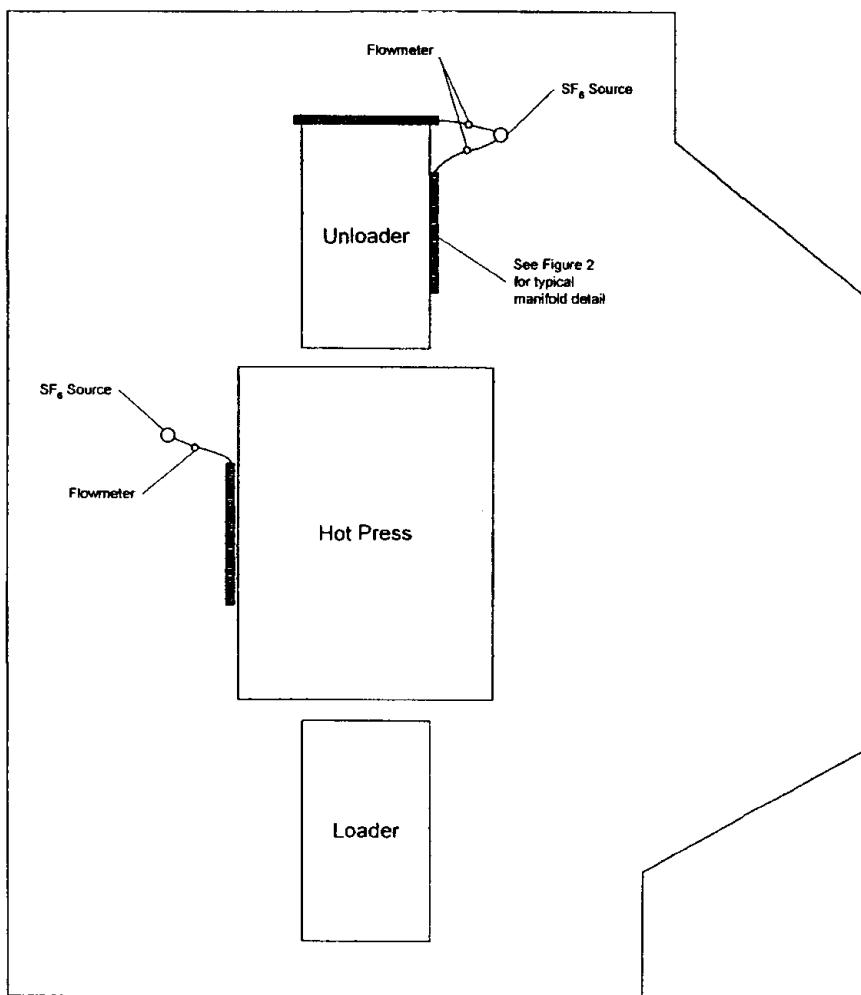


Figure 1. Plan view schematic of hot press and enclosure showing SF₆ manifold locations.

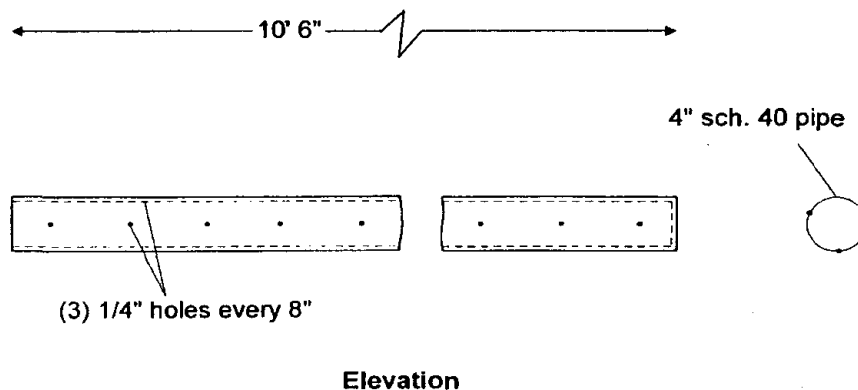


Figure 2. Schematic detail for manifold system for SF₆ injection.

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

APPENDIX B TO SUBPART DDDD OF PART 63—METHODOLOGY AND CRITERIA FOR DEMONSTRATING THAT AN AFFECTED SOURCE IS PART OF THE LOW-RISK SUBCATEGORY OF PLYWOOD AND COMPOSITE WOOD PRODUCTS MANUFACTURING AFFECTED SOURCES

1. PURPOSE

This appendix provides the methodology and criteria for demonstrating that your affected source is part of the low-risk subcategory of plywood and composite wood products (PCWP) manufacturing facilities. You must demonstrate that your affected source is part of the low-risk subcategory using either a look-up table analysis (based on the look-up tables included in this appendix) or using a site-specific risk assessment performed according to the criteria specified in this appendix. This appendix also specifies how and when you must obtain approval of the low-risk demonstrations for your affected source and how to ensure that your affected source remains in the low-risk subcategory of PCWP facilities.

2. WHO IS ELIGIBLE TO DEMONSTRATE THAT THEY ARE PART OF THE LOW-RISK SUBCATEGORY OF PCWP AFFECTED SOURCES?

Each new, reconstructed, or existing affected source at a PCWP manufacturing facility may demonstrate that they are part of the low-risk subcategory of PCWP affected sources. Section 63.2232 of 40 CFR part 63,

subpart DDDD, defines the affected source and explains which affected sources are new, existing, or reconstructed.

3. WHAT PARTS OF MY AFFECTED SOURCE HAVE TO BE INCLUDED IN THE LOW-RISK DEMONSTRATION?

Every process unit that is part of the PCWP affected source (as defined in §63.2292 of 40 CFR part 63, subpart DDDD) and that emits one or more hazardous air pollutant (HAP) listed in table 1 to this appendix must be included in the low-risk demonstration. You are not required to include process units outside of the affected source in the low-risk demonstration.

4. WHAT ARE THE CRITERIA FOR DETERMINING IF MY AFFECTED SOURCE IS LOW RISK?

(a) Determine the individual HAP emission rates from each process unit emission point within the affected source using the procedures specified in section 5 of this appendix.

(b) Perform chronic and acute risk assessments using the dose-response values, as specified in paragraphs (b)(1) through (3) of this section.

(1) For a look-up table analysis or site-specific chronic inhalation risk assessment, you should use the cancer and noncancer dose-response values listed on the Environmental Protection Agency (EPA) Air Toxics Web site (<http://www.epa.gov/ttn/atw/toxsource/summary.html>) to estimate carcinogenic and non-carcinogenic chronic inhalation risk, respectively.

(2) For site-specific acute inhalation risk assessment, you should use the acute exposure guidance level (AEGL-1) value for acrolein and the acute reference exposure level

(REL) value for formaldehyde for estimating acute inhalation risk found at <http://www.epa.gov/ttn/atw/toxsource/summary.html>.

(3) You may use dose-response values more health-protective than those posted on the EPA Air Toxics Web site (<http://www.epa.gov/ttn/atw/toxsource/summary.html>) to facilitate ongoing certification (as required in section 13 of this appendix) that your affected source remains in the low-risk subcategory.

(c) Demonstrate that your affected source is part of the low-risk subcategory by estimating the maximum impacts of your affected source using the methods described in either section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific risk assessment) and comparing the results to the low-risk criteria presented in the applicable section.

5. HOW DO I DETERMINE HAP EMISSIONS FROM MY AFFECTED SOURCE?

(a) You must determine HAP emissions for every process unit emission point within the affected source that emits one or more of the HAP listed in table 1 to this appendix as specified in table 2A to this appendix. For each process unit type, table 2A to this appendix specifies whether emissions testing is required or if emissions estimation is allowed as an alternative to emissions testing. If emissions estimation is allowed according to table 2A, you must develop your emission estimates according to the requirements in paragraph (k) of this section. You may choose to perform emissions testing instead of emissions estimation. You must conduct HAP emissions tests according to the requirements in paragraphs (b) through (j) of this section and the methods specified in table 2B to this appendix. If you conduct fuel analyses, you must follow the requirements of paragraph (m) of this section. For each of the emission points at your affected source, you must obtain the emission rates in pounds per hour (lb/hr) for each of the pollutants listed in table 1 to this appendix.

(b) *Periods when emissions tests must be conducted.*

(1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 63.7(e)(1).

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) *Number of test runs.* You must conduct three separate test runs for each test required in this section, as specified in 40 CFR 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 in 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 40 CFR part 63, subpart DDDD, which requires a minimum of three separate runs of at least 20 minutes each.

(d) *Sampling locations.* Sampling sites must be located at the emission point and prior to any releases to the atmosphere. For example, at the outlet of the control device, including wet control devices, and prior to any releases to the atmosphere.

(e) *Collection of monitoring data for HAP control devices.* During the emissions test, you must collect operating parameter monitoring system or continuous emissions monitoring system (CEMS) data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements (including the parameter limits or total hydrocarbon (THC) concentration limit) in table 2 to 40 CFR part 63, subpart DDDD, using data from the monitoring system and the procedures specified in paragraphs (k) through (o) of §63.2262 of subpart DDDD of 40 CFR part 63.

(f) *Nondetect data.* You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the conditions in paragraphs (1) and (2) of this section are met for the relevant test method. Otherwise, nondetect data (as defined in §63.2292 of 40 CFR part 63, subpart DDDD) for individual HAP must be treated as one-half of the method detection limit.

(1) The method detection limit is less than or equal to 1 part per million by volume, dry (ppmvd) for pollutant emissions measured using Method 320 in appendix A to 40 CFR part 63; or Method 18 in appendix A to 40 CFR part 60; or the NCASI Method IM/CAN/WP-99.02 (incorporated by reference (IBR), see 40 CFR 63.14(f)); or NCASI Method ISS/FP-A105.01 (IBR, see 40 CFR 63.14(f)); or ASTM D6348-03 (IBR, see 40 CFR 63.14(b)).

(2) For pollutants measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS) or another laboratory method specified in Method 29 in appendix A to 40 CFR part 60 with detection limits lower than or equal to AAS.

(g) For purposes of your low-risk demonstration, you must assume that 17 percent of your total chromium measured using EPA Method 29 in appendix A to 40 CFR part 60 is chromium VI. You must assume that 65 percent of your total nickel measured using EPA Method 29 in appendix A to 40 CFR part 60 is nickel subsulfide.

(h) You may use emission rates higher than your measured emission rates (e.g., emissions rates 10 times your measured emission rate) to facilitate ongoing certification (as required in section 13 of this appendix) that your affected source remains in the low-risk subcategory.

(i) *Use of previous emissions tests.* You may use the results of previous emissions tests provided that the following conditions are met:

(1) The previous emissions tests must have been conducted using the methods specified in table 2B to this appendix. Previous emission test results obtained using NCASI Method IM/CAN/WP-99.01 are acceptable.

(2) The previous emissions tests must meet the requirements in paragraphs (b) through (j) of this section.

(3) The subject process unit(s) must be operated in a manner (e.g., with raw material type, operating temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s) and the process unit(s) may not have been modified such that emissions would be expected to exceed (notwithstanding normal test-to-test variability) the results from previous emissions test(s).

(4) The previous emissions test(s) must have been conducted in 1997 or later.

(j) *Use of test data for similar process units.* If you have multiple similar process units at the same plant site, you may apply the test results from one of these process units to the other similar process units for purposes of your low-risk demonstration provided that the following conditions are met:

(1) You must explain how the process units are similar in terms of design, function, heating method, raw materials processed, residence time, change in material moisture content, operating temperature, resin type processed, age, and any other parameters that may affect emissions.

(2) If the process units have different throughput rates, then you must convert the emission test results to terms of pounds of HAP per unit throughput prior to applying the emissions test data to other similar process units.

(3) If one of the process units would be expected to exhibit higher emissions due to minor differences in process parameters, then you must explain and test the process unit that would be expected to exhibit greater emissions (for example, the unit with a slightly higher temperature set point, dryer processing furnish with slightly higher inlet moisture content, press processing thicker panels, unit with the greater throughput, considerably older unit, etc.).

(k) If emissions estimation is allowed, you must follow the procedures in (1) through (3) of this paragraph.

(1) You must use the emission factors or other emission estimation techniques specified in table 2A to this appendix when developing emission estimates.

(2) You must base your emission estimates on the maximum process unit throughput you will incorporate into your permit according to section 11(b) of this appendix.

(3) For process units with multiple emission points, you must apportion the estimate emissions evenly across each emission point. For example, if you have a process unit with two emission points, and the process unit is estimated to emit 6 lb/hr, you would assign 3 lb/hr to each emission point.

(l) *Testing of multiple stacks.* You may test one of multiple stacks for a process unit provided that the following conditions are met:

(1) The emissions are produced by the same process unit.

(2) The emissions originate from the same duct.

(3) The emissions are sufficiently mixed so that the gaseous pollutant concentrations from one stack are not expected to differ from concentrations from another stack.

(m) *Conducting a fuel analysis.* For process units that require testing of metals according to table 2A to this appendix, you may conduct a fuel analysis in lieu of emissions tests. You must follow the procedures described in §63.7521 (a) and (c) through (e) of subpart DDDDD; §63.7530(d)(1), (2), and (4) of subpart DDDDD, and line 2 of table 6 to subpart DDDDD. For purposes of this appendix, the total selected metals analyzed by fuel analysis are the metals included in table 1 to this appendix.

6. HOW DO I CONDUCT A LOOK-UP TABLE ANALYSIS?

Use the look-up tables (tables 3 and 4 to this appendix) to demonstrate that your affected source is part of the low-risk subcategory, following the procedures in paragraphs (a) through (d) of this section.

(a) Using the emission rate of each HAP required to be included in your low-risk demonstration (determined according to section 5 of this appendix), calculate your total toxicity-weighted carcinogen and noncarcinogen emission rates for each of your emission points using Equations 1 and 2 of this appendix, respectively. Calculate your carcinogen and non-carcinogen weighted stack height using Equations 3 and 4 of this appendix, respectively.

$$TWCER = \sum (ER_i \times URE_i) \quad \text{Eqn. 1}$$

TWCER = Toxicity-weighted carcinogenic emission rate for each emission point (lb/hr)/(μgm/m³)

ER_i = Emission rate of pollutant i (lb/hr)

URE_i = Unit risk estimate for pollutant i, 1 per microgram per cubic meter (μgm/m³)⁻¹

$$TWNER = \sum (ER_i / RfC_i) \quad \text{Eqn. 2}$$

TWNER = Toxicity-weighted noncarcinogenic emission rate for each emission point (lb/hr)/(μgm/m³)

ER_i = Emission rate of pollutant i (lb/hr)

RFC_i = Reference concentration for pollutant i, micrograms per cubic meter (µgm/m³)

WHC = Carcinogen weighted stack height for use in the carcinogen look-up table (table 3 to this appendix)

H = Height of each individual stack or emission point (m)

ep = Individual stacks or emission points

n = Total number of stacks and emission points

$$WHC = \frac{\sum_{ep=1}^{ep=n} TW CER_{ep}}{\sum_{ep=1}^{ep=n} TW CER_{ep}} \times H_{ep} \quad \text{Eqn. 3}$$

$$WHN = \sum_{ep=1}^{ep=n} \left[\frac{TWNER_{ep}}{\sum_{ep=1}^{ep=n} TWNER_{ep}} \right] \times H_{ep} \quad \text{Eqn. 4}$$

WHN = Non-carcinogen weighted stack height for use in the non-carcinogen look-up table (table 4 to this appendix)

H = Height of each individual stack or emission point (m)

ep = Individual stacks or emission points

n = Total number of stacks and emission points

(b) *Cancer risk.* Calculate the total toxicity-weighted carcinogen emission rate for your affected source by summing the toxicity-weighted carcinogen emission rates for each of your emission points. Identify the appropriate maximum allowable toxicity-weighted carcinogen emission rate from table 3 to this appendix for your affected source using the carcinogen weighted stack height of your emission points and the minimum distance between any emission point at the affected source and the property boundary. If one or both of these values do not match the exact values in the look-up table, then use the next lowest table value. (Note: If your weighted stack height is less than 5 meters (m), you must use the 5 m row.) Your affected source is considered low risk for carcinogenic effects if your toxicity-weighted carcinogen emission rate, determined using the methods specified in this appendix, does not exceed the values specified in table 3 to this appendix.

(c) *Noncancer risk.* Calculate the total central nervous system (CNS) and respiratory target organ specific toxicity-weighted non-carcinogen emission rate for your affected source by summing the toxicity-weighted emission rates for each of your emission points. Identify the appropriate maximum allowable toxicity-weighted noncarcinogen emission rate from table 4 to this appendix for your affected source using the non-carcinogen weighted stack height of your emission points and the minimum distance between any emission point at the affected source and the property boundary. If one or

both of these values do not match the exact values in the look-up table, then use the next lowest table value. (Note: If your weighted stack height is less than 5 m, you must use the 5 m row.) Your affected source is considered low risk for noncarcinogenic effects if your toxicity-weighted noncarcinogen emission rate, determined using the methods specified in this appendix, does not exceed the values specified in table 4 to this appendix.

(d) *Low-risk demonstration.* The EPA will approve your affected source as eligible for membership in the low-risk subcategory of PCWP affected sources if it determines that: (1) Your affected source is low risk for both carcinogenic and noncarcinogenic effects using the look-up table analysis described in this section and (2) you meet the criteria specified in section 11 of this appendix.

7. HOW DO I CONDUCT A SITE-SPECIFIC RISK ASSESSMENT?

(a) Perform a site-specific risk assessment following the procedures specified in this section. You may use any scientifically-accepted peer-reviewed assessment methodology for your site-specific risk assessment. An example of one approach to performing a site-specific risk assessment for air toxics that may be appropriate for your affected source can be found in the "Air Toxics Risk Assessment Guidance Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document." You may obtain a copy of the "Air Toxics Risk Assessment Reference Library" through EPA's air toxics Web site at http://www.epa.gov/ttn/fera/risk_atra_main.html.

(b) At a minimum, your site-specific risk assessment must:

(1) Estimate the long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations for the chronic portion of the assessment.

(2) Estimate the acute exposures for formaldehyde and acrolein through the estimation of maximum 1-hour average ambient concentrations for the acute portion of the assessment.

(3) Estimate the inhalation exposure of the individual most exposed to the affected source's emissions.

(4) Estimate the individual risks over a 70-year lifetime for the chronic cancer risk assessment.

(5) Use site-specific, quality-assured data wherever possible.

(6) Use health-protective default assumptions wherever site-specific data are not available.

(7) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emission measurement expert.

(c) Your site-specific risk assessment need not:

(1) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas.

(2) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

(d) Your affected source is considered low risk for carcinogenic chronic inhalation effects if your site-specific risk assessment demonstrates that maximum off-site individual lifetime cancer risk at a location where people live or congregate (e.g., school or day care center) is less than 1 in 1 million.

(e) Your affected source is considered low risk for noncarcinogenic chronic inhalation effects if your site-specific risk assessment demonstrates that every maximum off-site target-organ specific hazard index (TOSHI), or appropriate set of site-specific hazard indices based on similar or complementary mechanisms of action that are reasonably likely to be additive at low dose or dose-response data for mixtures, at a location where people live is less than or equal to 1.0.

(f) Your affected source is considered low risk for noncarcinogenic acute inhalation effects if your site-specific risk assessment demonstrates that the maximum off-site acute hazard quotients for both acrolein and formaldehyde are less than or equal to 1.0.

(g) The EPA will approve your affected source as eligible for membership in the low-risk subcategory of PCWP affected sources if it determines that: (1) your affected source is low risk for all of the applicable effects listed in paragraphs (d) through (f) of this section and (2) you meet the criteria specified in section 11 of this appendix.

8. WHAT INFORMATION MUST I SUBMIT FOR THE LOW-RISK DEMONSTRATION?

(a) Your low-risk demonstration must include at a minimum the information specified in paragraphs (a)(1) through (5) of this

section and the information specified in either paragraph (b) or (c) of this section.

(1) Identification of each process unit at the affected source.

(2) Stack parameters for each emission point including, but not limited to, the parameters listed in paragraphs (a)(2)(i) through (iv) below:

(i) Emission release type.

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity.

(iii) Plot plan showing all emission points, nearby residences, and fence line.

(iv) Identification of any HAP control devices used to reduce emissions from each process unit.

(3) Emission test reports for each pollutant and process unit based on the testing requirements and methods specified in tables 2A and 2B to this appendix, including a description of the process parameters identified as being worst case. You must submit your emissions calculations for each pollutant and process unit for which emissions estimates are developed. You must submit fuel analyses for each fuel and emission point which has been conducted, including collection and analytical methods used.

(4) Identification of the dose-response values used in your risk analysis (look-up table analysis or site-specific risk assessment), according to section 4(b) of this appendix.

(5) Identification of the controlling process factors (including, but not limited to, production rate, emission rate, type of control devices, process parameters documented as worst-case conditions during the emissions testing used for your low-risk demonstration) that will become Federally enforceable permit conditions used to show that your affected source remains in the low-risk subcategory.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your affected source is low risk, your low-risk demonstration must contain at a minimum the information in paragraphs (a) and (b)(1) through (4) of this section.

(1) Identification of the stack heights for each emission point included in the calculations of weighted stack height.

(2) Identification of the emission point with the minimum distance to the property boundary.

(3) Calculations used to determine the toxicity-weighted carcinogen and noncarcinogen emission rates and weighted stack heights according to section 6(a) of this appendix.

(4) Comparison of the values in the look-up tables (tables 3 and 4 to this appendix) to your toxicity-weighted emission rates for carcinogenic and noncarcinogenic HAP.

(c) If you use a site-specific risk assessment as described in section 7 of this appendix to demonstrate that your affected source

is low risk (for carcinogenic and noncarcinogenic chronic inhalation and acute inhalation risks), your low-risk demonstration must contain at a minimum the information in paragraphs (a) and (c)(1) through (8) of this section.

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (4) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of exposure assessment and risk characterization calculations.

(6) Comparison of the maximum off-site individual lifetime cancer risk at a location where people live to 1 in 1 million, as required in section 7(d) of this appendix for carcinogenic chronic inhalation risk.

(7) Comparison of the maximum off-site TOSHI for respiratory effects and CNS effects at a location where people live to the limit of 1.0, as required in section 7(e) of this appendix for noncarcinogenic chronic inhalation risk.

(8) Comparison of the maximum off-site acute inhalation hazard quotient (HQ) for both acrolein and formaldehyde to the limit of 1.0, as required in section 7(f) of this appendix for noncarcinogenic acute inhalation effects.

(d) The EPA may request any additional information it determines is necessary or appropriate to evaluate an affected source's low-risk demonstration.

9. WHERE DO I SEND MY LOW-RISK DEMONSTRATION?

You must submit your low-risk demonstration to the EPA for review and approval. Send your low-risk demonstration either by e-mail to REAG@EPA.GOV or by U.S. mail or other mail delivery service to U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404-01), Attn: Group Leader, Research Triangle Park, NC 27711, and send a copy to your permitting authority. Your affected source is not part of the low-risk subcategory of PCWP facilities unless and until EPA notifies you that it has determined that you meet the requirements of section 11 of this appendix.

10. WHEN DO I SUBMIT MY LOW-RISK DEMONSTRATION?

(a) *Existing affected sources.* If you have an existing affected source, you may complete

and submit for approval your low-risk demonstration (including the emission test results, fuel analyses, and emission estimates required in this appendix) any time. Existing affected sources that are not approved by EPA as being part of the low-risk subcategory by October 1, 2008, must comply with the requirements of 40 CFR part 63, subpart DDDD from October 1, 2008, unless and until EPA approves them as part of the low-risk subcategory.

(b) *Sources in compliance with 40 CFR part 63, subpart DDDD.* If you operate an affected source that is already in compliance with 40 CFR part 63, subpart DDDD (including, but not limited to, an existing source, a new or reconstructed affected source starting up before September 28, 2004, or a new source starting up after September 28, 2004, but before February 16, 2006) and wish to become part of the low-risk subcategory, then you may complete and submit for approval your low-risk demonstration (including the emission test results, fuel analyses, and emission estimates required in this appendix) any time. Your affected source will become part of the low-risk subcategory when EPA determines that the requirements in section 11 of this appendix are met.

(c) New or reconstructed affected sources wanting to be part of the low-risk subcategory at startup must comply with the requirements of paragraphs (c)(1) through (c)(3) of this section.

(i)(i) You must complete and submit for review and approval a pre-startup low-risk demonstration no later than nine months prior to initial startup. The pre-startup low-risk demonstration must be based on the information (e.g., equipment types, estimated emission rates, etc.) that you will likely use to obtain your title V permit. You must base your pre-startup low-risk demonstration on the maximum emissions that will likely be allowed when you obtain your title V permit.

(ii) You must request that your affected source become part of the low-risk subcategory based on your pre-startup low-risk demonstration.

(iii) If EPA approves your pre-startup low-risk demonstration, then your affected source will be part of the low-risk subcategory upon approval of the pre-startup low-risk demonstration and you may start up your affected source without complying with the compliance options, operating requirements, and work practice requirements in 40 CFR part 63, subpart DDDD, provided that you operate your affected source consistently with the pre-startup low-risk demonstration until you meet the criteria in section 11 of this appendix based on your verification low-risk demonstration developed according to paragraph (c)(2) of this

section. Failure to so operate will render approval of your pre-startup low-risk demonstration null and void from the date you startup your affected source.

(2)(i) You must complete and submit your verification low-risk demonstration, including the results from emission tests (or fuel analyses) required in this appendix, within 240 days following initial startup. The verification low-risk demonstration must demonstrate to EPA's satisfaction that the affected source is low risk. The verification low-risk demonstration may be used to change operating parameters ensuring low-risk status.

(ii) If you do not submit the verification low-risk demonstration as required, or the verification low-risk demonstration does not verify that the affected source is low risk, then approval of your pre-startup low-risk demonstration is null and void from the date you startup your affected source and you must comply immediately with subpart DDDD of 40 CFR part 63.

(3) To incorporate the low-risk parameters from your verification low-risk demonstration into your title V permit, you must submit your application for a significant modification to your title V permit within 1 year following initial startup, or earlier if so required under your State's permit program approved under 40 CFR part 70. The parameters that defined your affected source as part of the low-risk subcategory (including, but not limited to, production rate, emission rate, type of control devices, process parameters reflecting the emissions rates used for your low-risk demonstration, and stack height) must be submitted for incorporation as federally enforceable terms and conditions into your title V permit. You must provide written certification to the permitting authority that your affected source is operating consistently with its EPA-approved pre-startup low-risk demonstration and verification low-risk demonstration, as applicable, from startup until your title V permit revision is issued.

(d) New or reconstructed affected sources that want to operate consistently with a pre-startup low-risk demonstration at startup and become part of the low-risk subcategory based on EPA approval of their verification low-risk demonstration (rather than based on their pre-startup low-risk demonstration), must comply with the requirements in paragraphs (d)(1) through (d)(3) of this section.

(1)(i) You must complete and submit for review a pre-startup low-risk demonstration no later than nine months prior to initial startup. The pre-startup low-risk demonstration must be based on the information (e.g., equipment types, estimated emission rates, etc.) that you will likely use to obtain your title V permit. You must base your pre-startup low-risk demonstration on the maximum

emissions that will likely be allowed when you obtain your title V permit.

(ii) If EPA concludes that your pre-startup low-risk demonstration is complete and sufficiently shows that your affected source appears to be eligible for inclusion in the low-risk subcategory, then you must operate your affected source consistently with the pre-startup low-risk demonstration until EPA determines that you meet the criteria in section 11 of this appendix based on your verification low-risk demonstration developed according to paragraph (d)(2) of this section.

(2)(i) You must complete and submit for EPA review and approval your verification low-risk demonstration, including the results from emission tests (or fuel analyses) required in this appendix, within 240 days following initial startup. The verification low-risk demonstration must demonstrate to EPA's satisfaction that the affected source is low risk.

(ii) You will become part of the low-risk subcategory when EPA determines that you meet the criteria in section 11 of this appendix based upon your verification low-risk demonstration. If you do not submit the verification low-risk demonstration as required, or the verification low-risk demonstration does not verify that the affected source is low risk, then EPA will not approve your low-risk demonstration and you will remain subject to subpart DDDD of 40 CFR part 63.

(3) To incorporate the low-risk parameters from your verification low-risk demonstration into your title V permit, you must submit your application for a significant modification to your title V permit within 1 year following initial startup, or earlier if so required by your State's permit program approved by EPA under 40 CFR part 70. The parameters that defined your affected source as part of the low-risk subcategory (including, but not limited to, production rate, emission rate, type of control devices, process parameters reflecting the emissions rates used for your low-risk demonstration, and stack height) must be submitted for incorporation as federally enforceable terms and conditions into your title V permit. You must provide written certification to the permitting authority that your affected source is operating consistently with its pre-startup LRD and your verification LRD, as applicable, from startup until your title V permit revision is issued.

(e) *Area sources that become affected sources.* If you have an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before September 28, 2004, then you must complete and submit for approval your low-risk demonstration as specified in paragraph (a) of this section. If you have an affected source that is an area

source that increases its emissions or its potential to emit such that it becomes a major source of HAP after September 28, 2004, then you must complete and submit for approval your low-risk demonstration as specified in paragraphs (b), (c) or (d) of this section, whichever applies.

11. HOW DOES MY AFFECTED SOURCE BECOME PART OF THE LOW-RISK SUBCATEGORY OF PCWP FACILITIES?

For existing sources to be included in the low-risk subcategory, EPA must find that you meet the criteria in paragraphs (a) and (b) of this section. For new sources to be included in the low-risk subcategory, EPA must find that you meet the criteria in paragraph (a) of this section. Unless and until EPA finds that you meet these criteria, your affected source is subject to the applicable compliance options, operating requirements, and work practice requirements in 40 CFR part 63, subpart DDDD.

(a) Your demonstration of low risk must be approved by EPA.

(b) Following EPA approval, the parameters that defined your affected source as part of the low-risk subcategory (including, but not limited to, production rate, emission rate, type of control devices, process parameters reflecting the emissions rates used for your low-risk demonstration, and stack height) must be submitted for incorporation as federally enforceable terms and conditions into your title V permit. You must submit an application for a significant permit modification to reopen your title V permit to incorporate such terms and conditions according to the procedures and schedules of 40 CFR part 71 or the EPA-approved program in effect under 40 CFR part 70, as applicable.

12. WHAT MUST I DO TO ENSURE MY AFFECTED SOURCE REMAINS IN THE LOW-RISK SUBCATEGORY OF PCWP FACILITIES?

You must meet the requirements in table 2 to 40 CFR part 63, subpart DDDD, for each HAP control device used at the time when you completed your low-risk demonstration. You must monitor and collect data according to §63.2270 of subpart DDDD to show continuous compliance with your control device operating requirements. You must demonstrate continuous compliance with the control device operating requirements that apply to you by collecting and recording the monitoring system data listed in table 2 to 40 CFR part 63, subpart DDDD for the process unit according to §§63.2269(a), (b), and (d) of subpart DDDD; and reducing the monitoring system data to the specified averages in units of the applicable requirement according to calculations in §63.2270 of subpart DDDD; 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 section 5(e) of this appendix.

13. WHAT HAPPENS IF THE CRITERIA USED IN THE RISK DETERMINATION CHANGE?

(a) You must certify with each annual title V permit compliance certification that the basis for your affected source's low-risk determination has not changed. You must submit this certification to the permitting authority. You must consider the changes in paragraphs (a)(1) through (5) of this section.

(1) Process changes that increase HAP emissions, including, but not limited to, a production rate increase, an emission rate increase, a change in type of control device, changes in process parameters reflecting emissions rates used for your approved low-risk demonstration.

(2) Population shifts, such as if people move to a different location such that their risks from the affected source increase.

(3) Unit risk estimate increases posted on the EPA Web site (<http://www.epa.gov/ttn/atw/toxsource/summary.html>) for the pollutants included in table 1 to this appendix.

(4) Reference concentration changes posted on the EPA Web site (<http://www.epa.gov/ttn/atw/toxsource/summary.html>) for the pollutants included in table 1 to this appendix.

(5) Acute dose-response value for formaldehyde or acrolein changes.

(b) If your affected source commences operating outside of the low-risk subcategory, it is no longer part of the low-risk subcategory. You must be in compliance with 40 CFR part 63, subpart DDDD as specified in paragraphs (b)(1) through (3) of this section. Operating outside of the low-risk subcategory means that one of the changes listed in paragraphs (a)(1) through (5) of this section has occurred and that the change is inconsistent with your affected source's title V permit terms and conditions reflecting EPA's approval of the parameters used in your low-risk demonstration.

(1) You must notify the permitting authority as soon as you know, or could have reasonably known, that your affected source is or will be operating outside of the low-risk subcategory.

(2) You must be in compliance with the requirements of 40 CFR part 63, subpart DDDD as specified in paragraph (b)(2)(i) or (ii) of this section, whichever applies.

(i) If you are operating outside of the low-risk subcategory due to a change described in paragraph (a)(1) of this section, then you must comply with 40 CFR part 63, subpart DDDD beginning on the date when your affected source commences operating outside the low-risk subcategory.

(ii) If you are operating outside of the low-risk subcategory due to a change described in paragraphs (a)(2) through (5) of this section, then you must comply with 40 CFR part 63, subpart DDDD no later than 3 years from

the date your affected source commences operating outside the low-risk subcategory.

(3)(i) You must conduct performance tests no later than 180 calendar days after the applicable date specified in paragraph (b)(2) of this section.

(ii) You must conduct initial compliance demonstrations that do not require performance tests 30 calendar days after the applicable date specified in paragraph (b)(2) of this section.

(iii) For the purposes of affected sources affected by this section, you must refer to the requirements in paragraph (b) of this section instead of the requirements of §63.2233 when complying with 40 CFR part 63, subpart DDDD.

14. WHAT RECORDS MUST I KEEP?

(a) You must keep records of the information used in developing the low-risk demonstration for your affected source, including all of the information specified in section 8 of this appendix.

(b) You must keep records demonstrating continuous compliance with the operating requirements for control devices.

(c) For each THC CEMS, you must keep the records specified in §63.2282(c) of 40 CFR part 63, subpart DDDD.

15. DEFINITIONS

The definitions in §63.2292 of 40 CFR part 63, subpart DDDD, apply to this appendix. Additional definitions applicable for this appendix are as follows:

Agricultural fiber board press means a press used in the production of an agricultural fiber based composite wood product. An *agricultural fiber board press* is a process unit.

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

Ancillary processes mean equipment and process units that are part of the PCWP affected source that are not defined elsewhere in this section or in section 63.2292 of subpart DDDD. Ancillary processes at a specific facility do not include the equipment and process units identified as insignificant sources of HAP emissions by that facility, and they do not include equipment and process units subject to another standard under 40 CFR part 63. Ancillary processes may be or may not be HAP emissions sources.

Ancillary processes are process units.

Atmospheric refiner means a piece of equipment operated under atmospheric pressure for refining (rubbing or grinding) the wood material into fibers or particles. Atmospheric refiners are operated with continuous infeed and outfeed of wood material and atmospheric pressures throughout the refining

process. An *atmospheric refiner* is a process unit.

Blending and forming operations means the process of mixing adhesive and other additives with the (wood) furnish of the composite panel and making a mat of resinated fiber, particles, or strands to be compressed into a reconstituted wood product such as particleboard, oriented strandboard, or medium density fiberboard. *Blending and forming operations* are process units.

Emission point means an individual stack or vent from a process unit that emits HAP required for inclusion in the low-risk demonstration specified in this appendix. Process units may have multiple emission points.

Fiber washer means a unit in which water-soluble components of wood (hemicellulose and sugars) that have been produced during digesting and refining are removed from the wood fiber. Typically wet fiber leaving a refiner is further diluted with water and then passed over a filter, leaving the cleaned fiber on the surface. A *fiber washer* is a process unit.

Finishing sander means a piece of equipment that uses an abrasive drum, belt, or pad to impart smoothness to the surface of a plywood or composite wood product panel and to reduce the panel to the prescribed thickness. A *finishing sander* is a process unit.

Finishing saw means a piece of equipment used to trim or cut finished plywood and composite wood products panels to a certain size. A *finishing saw* is a process unit.

Hardwood plywood press means a hot press which, through heat and pressure, bonds assembled hardwood veneers (including multiple plies of veneer and/or a substrate) and resin into a hardwood plywood panel. A *hardwood plywood press* is a process unit.

Hardwood veneer kiln means an enclosed dryer operated in batch cycles by applying heat to reduce the moisture content from stacked hardwood veneer. A *hardwood veneer kiln* is a process unit.

Hazard Index (HI) means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the reference concentration (RfC).

Humidifier means a process unit used to increase the moisture content of hardboard following pressing or after post-baking. Typically, water vapor saturated air is blown over the hardboard surfaces in a closed cabinet. A *humidifier* is a process unit.

I-joint curing chamber means an oven or a room surrounded by a solid wall or heavy plastic flaps that uses heat, infrared, or

radio-frequency techniques to cure the adhesive. An *I-joist curing chamber* is a process unit.

Log chipping means the production of wood chips from logs.

Log vat means a process unit that raises the temperature of the logs inside by applying a heated substance, usually hot water and steam, to the outside of the logs by spraying or soaking. A *log vat* is a process unit.

Look-up table analysis means a risk screening analysis based on comparing the toxicity-weighted HAP emission rate from the affected source to the maximum allowable toxicity-weighted HAP emission rates specified in tables 3 and 4 to this appendix.

LSL press means a composite wood product press that presses a loose mat of resinated strands into a billet by simultaneous application of heat and pressure. The billet is cut into laminated strand lumber after exiting the press. An *LSL press* is a process unit.

LVL or PSL press means a composite wood product press that presses resinated stacks of veneers into a solid billet by application of heat and/or pressure. The billet is cut into laminated veneer lumber or parallel strand lumber after exiting the press. An *LVL or PSL press* is a process unit.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

Paddle-type particleboard dryer means a dryer to which heat is applied to remove moisture from particles and paddles to advance materials through the dryer. This type of dryer removes moisture absorbed by particles due to high ambient temperature. A *paddle-type particleboard dryer* is a process unit.

Panel-trim chipper means a piece of equipment that accepts the discarded pieces of veneer or pressed plywood and composite wood products panels that are removed by finishing saws and reduces these pieces to small elements. A *panel-trim chipper* is a process unit.

Particleboard extruder means a heated die oriented either horizontally or vertically through which resinated particles are continuously forced to form extruded particleboard products. A *particleboard extruder* is a process unit.

Particleboard press mold means a press that consists of molds that apply heat and pressure to form molded or shaped particleboard products. A *particleboard press mold* is a process unit.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Radio-frequency veneer redryer means a dryer heated by radio-frequency waves that is used to redry veneer that has been pre-

viously dried. A *radio-frequency veneer redryer* is a process unit.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

Resin storage tank means any storage tank, container, or vessel connected to plywood and composite wood product production that holds resin additives (in liquid form) containing any of the HAP listed in table 2A to this appendix. A *resin storage tank* is a process unit.

Rotary agricultural fiber dryer means a rotary dryer operated by applying heat to reduce the moisture of agricultural fiber. A *rotary agricultural fiber dryer* is a process unit.

Softwood plywood press means a hot press which, through heat and pressure, bonds assembled softwood veneer plies and resin into a softwood plywood panel. A *softwood plywood press* is a process unit.

Softwood veneer kiln means an enclosed dryer operated in batch cycles by applying heat to reduce the moisture content from stacked softwood veneer. A *softwood veneer kiln* is a process unit.

Stand-alone digester means a pressure vessel used to heat and soften wood chips (usually by steaming) before the chips are sent to a separate process unit for refining into fiber. A *stand-alone digester* is a process unit.

Target organ specific hazard index (TOSHI) means the sum of hazard quotients for individual chemicals that affect the same organ or organ system (e.g., respiratory system, central nervous system).

Unit Risk Estimate (URE) means the upper-bound excess lifetime cancer risk estimated to result from continuous exposure to an agent at a concentration of 1 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) in air.

Wastewater/process water operation means equipment that processes water in plywood or composite wood product facilities for reuse or disposal. Wastewater/process water operations includes but is not limited to pumps, holding ponds and tanks, cooling and heating operations, settling systems, filtration systems, aeration systems, clarifiers, pH adjustment systems, log storage ponds, pollution control device water (including wash water), vacuum distillation systems, sludge drying and disposal systems, spray irrigation fields, and connections to POTW facilities. *Wastewater/process water operations* are process units.

Worst-case operating conditions means operation of a process unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the

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emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used. For example, worst case conditions could include operation of the process unit

at maximum throughput, at its highest temperature, with the wood species mix likely to produce the most HAP, and/or with the resin formulation containing the greatest HAP.

TABLE 1 TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—HAP THAT MUST BE INCLUDED IN THE DEMONSTRATION OF ELIGIBILITY FOR THE LOW-RISK PCWP SUBCATEGORY

For your analysis of the following effects . . .	You must include the following HAP . . .
(1) Chronic inhalation carcinogenic effects	acetaldehyde, benzene, arsenic, beryllium, cadmium, chromium, lead, nickel, and formaldehyde.
(2) Chronic inhalation noncarcinogenic respiratory effects	acetaldehyde, acrolein, cadmium, formaldehyde, and methylene diphenyl diisocyanate (MDI).
(3) Chronic inhalation noncarcinogenic CNS effects	manganese, lead, and phenol.
(4) Acute inhalation	acrolein and formaldehyde.

TABLE 2A TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—TESTING AND EMISSIONS ESTIMATION SPECIFICATIONS FOR PROCESS UNITS

Process unit type	Acetaldehyde	Acrolein	Formaldehyde	Phenol	Benzene	MDI	HAP metals from direct-fired process units*
Agricultural fiberboard mat dryers, Dry rotary dryers, Fiberboard mat dryer (heated zones), Green rotary dryers, Hardboard ovens, Hardwood veneer dryers (heated zones), Paddle-type particleboard dryers, Press pre-dryers, Rotary agricultural fiber dryers, Rotary strand dryers, Softwood veneer dryers (heated zones), Veneer redryers (heated by conventional means).	Test	Test	Test	Test	Test	NA	Test or fuel analysis.
Atmospheric refiners, Conveyor strand dryers, Pressurized refiners.	Test	Test	Test	Test	Test	NA	NA.
Primary tube dryers, Secondary tube dryers.	Test	Test	Test	Test	Test	Test if processing furnish with MDI resin added prior to drying.	Test or fuel analysis.
Agricultural fiber board presses, Reconstituted wood products presses, Reconstituted wood product board coolers.	Test	Test	Test	Test	Test	Test if board contains MDI resin.	NA
Blending and forming operations—particleboard and MDF.	NA	NA	0.060 lb/ODT ^b	NA	NA	Engineering estimate if MDI resin used.	NA.
Blending and forming operations—OSB ..	NA	NA	0.0036 lb/MSF ¾" press throughput.	Engineering estimate.	NA	Engineering estimate if MDI resin used.	NA.
Dry forming—hardboard	Engineering estimate.	NA	Engineering estimate.	Engineering estimate.	NA	NA	NA.
Fiber washers	0.015 lb/ODT	NA	0.0026 lb/ODT	NA	NA	NA	NA.
Fiberboard mat dryer (fugitive emissions)	0.0055 lb/MSF ½"	NA	0.031 lb/MSF ½"	NA	NA	NA	NA.
Finishing sanders	0.0031 lb/MSF	NA	0.0042 lb/MSF	0.015 lb/MSF	NA	Engineering estimate if MDI resin used.	NA.
Finishing saws	0.00092 lb/MSF ¾"	NA	0.00034 lb/MSF ¾"	0.0057 lb/MSF	NA	Engineering estimate if MDI resin used.	NA.
Hardwood plywood presses	NA	NA	0.0088 lb/MSF ¾"	0.016 lb/MSF ¾"	NA	NA	NA.
Hardwood veneer dryer (cooling zones) ..	0.058 lb/MSF ¾"	NA	0.013 lb/MSF ¾"	NA	NA	NA	NA.
Hardwood veneer kilns	0.067 lb/MSF ¾"	NA	0.016 lb/MSF ¾"	0.0053 lb/MSF ¾"	NA	NA	NA.
Humidifiers	0.0018 lb/MSF ½"	0.0087 lb/MSF ½"	0.0010 lb/MSF ½"	0.00057 lb/MSF ¾"	0.0000062 lb/MSF ¾"	NA	NA.
Hoist curing chambers	NA	NA	0.00018 lb/MLF	NA	NA	Engineering estimate if MDI resin used.	NA.

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TABLE 2A TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—TESTING AND EMISSIONS ESTIMATION SPECIFICATIONS FOR PROCESS UNITS—
Continued

Process unit type	Acetaldehyde	Acrolein	Formaldehyde	Phenol	Benzene	MDI	HAP metals from direct-fired process units*
Log vats	0.0047 lb/MSF ¾" removed from vat per hour.	NA	NA	NA	NA	NA	NA.
LSL presses	Engineering estimate.	NA	0.029 lb/1000 ft³ ..	Engineering estimate.	NA	0.18 lb/1000 ft³	NA.
LVL presses	0.29 lb/1000 ft³	NA	0.79 lb/1000 ft³	NA	NA	NA	NA.
Lumber kilns	0.065 lb/MBF or conduct small-scale kiln testing according to appendix C to subpart DDDD.	0.009 lb/MBF or conduct small-scale kiln testing according to appendix C to subpart DDDD.	0.034 lb/MBF or conduct small-scale kiln testing according to appendix C to subpart DDDD.	0.010 lb/MBF or conduct small-scale kiln testing according to appendix C to subpart DDDD.	NA	NA	Engineering estimate.
Panel-trim chippers	0.00081 lb/MSF ¾" finished board production.	NA	0.00034 lb/MSF ¾" finished board production.	0.0019 lb/MSF ¾" finished board production.	NA	NA	NA.
Particleboard press molds, Particleboard extruders.	0.034 lb/MSF ¾"	0.0087 lb/MSF ¾"	0.64 lb/MSF ¾" ...	0.024 lb/MSF ¾"	0.0073 lb/MSF ¾"	NA	NA.
Radio-frequency veneer redryers	0.0029 lb/MSF ¾"	NA	0.00065 lb/MSF ¾".	NA	NA	NA	NA.
Resin storage tanks—closed roof	NA	NA	For tanks with resin containing formaldehyde, 0.001 lb/hr per tank OR model using TANKS software ^c .	For tanks with resin containing phenol, 0.002 lb/hr per tank OR model using TANKS software ^c .	NA	For tanks with MDI resin, 0.0013 lb/hr per tank OR model using TANKS software ^c .	NA.
Resin storage tanks—open roof	NA	NA	Engineering estimate if resin contains formaldehyde.	Engineering estimate if resin contains phenol.	NA	Engineering estimate if resin contains MDI.	NA.
Softwood plywood presses	0.012 lb/MSF ¾"	NA	0.0054 lb/MSF ¾"	0.0022 lb/MSF ¾"	NA	NA	NA.
Softwood veneer dryers (cooling zones)	0.012 lb/MSF ¾"	NA	0.0028 lb/MSF ¾"	0.011 lb/MSF ¾"	NA	NA	NA.
Softwood veneer kilns	0.097 lb/MSF ¾"	0.012 lb/MSF ¾"	0.10 lb/MSF ¾" ...	0.020 lb/MSF ¾"	0.0078 lb/MSF ¾"	NA	NA.
Stand-alone digesters	0.030 lb/ODT	0.0024 lb/ODT	0.0045 lb/ODT	0.0012 lb/ODT	NA	NA	NA.
Wastewater/process water operations	Engineering estimate (such as WATER9 ^c or other method).	Engineering estimate (such as WATER9 ^c or other method).	Engineering estimate (such as WATER9 ^c or other method).	Engineering estimate (such as WATER9 ^c or other method).	Engineering estimate (such as WATER9 ^c or other method).	NA	NA.
Wet forming—fiberboard and hardboard (without PF resin).	0.0075 lb/MSF ½"	NA	0.0036 lb/MSF ½"	NA	NA	NA	NA.
Wet forming—hardboard (PF resin)	0.0067 lb/ODT	NA	0.00039 lb/ODT ...	0.00075 lb/ODT ...	NA	NA	NA.

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Miscellaneous coating operations, Log chipping, Softwood veneer dryer fugitive emissions.	NA	NA	NA	NA	NA	NA	NA
Other ancillary processes (not listed elsewhere in this table) that may emit HAP listed in this table.	Engineering estimate.	Engineering estimate.	Engineering estimate.	Engineering estimate.	Engineering estimate.	Engineering estimate.	Engineering estimate.

Test: Emissions testing must be conducted for the process unit and pollutant according to the test methods specified in table 2B to appendix B to subpart DDDD.

NA: Not applicable. No emission estimates or emissions tests are required for purposes of the low-risk demonstration.

lb/MSF: Pounds of HAP per thousand square feet of board of the inches thickness specified (e.g., lb/MSF ¾ = pounds of HAP per thousand square feet of ¾-inch board). See equation in § 63.2262(j) of subpart DDDD to convert from one thickness basis to another.

lb/ODT: Pounds of HAP per oven dried ton of wood material.

lb/MBF: Pounds of HAP per thousand board feet.

lb/MLF: Pounds of HAP per thousand linear feet.

* Direct-fired process units firing natural gas or propane are NA; thus, no emissions estimates, emissions tests, or fuel analyses are required for the purposes of the low-risk demonstration.

^b Estimation of formaldehyde emissions is only necessary for facilities that use resin containing formaldehyde.

^c TANKS and WATER9 software is available at <http://www.epa.gov/ttn/chieft/software/index.html>.

TABLE 2B TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—EMISSION TEST METHODS

For . . .	You must . . .	Using . . .
(1) each process unit required to be tested according to table 2A to this appendix.	select sampling ports' location and the number of traverse points.	Method 1 or 1A of 40 CFR part 60, appendix A (as appropriate).
(2) each process unit required to be tested according to table 2A to this appendix.	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 required to be tested according to table 2A to this appendix.	conduct gas molecular weight analysis . . .	Method 3, 3A, or 3B in appendix A to 40 CFR part 60 (as appropriate).
(4) each process unit required to be tested according to table 2A to this appendix.	measure moisture content of the stack gas.	Method 4 in appendix A to 40 CFR part 60.
(5) each process unit required to be tested according to table 2A to this appendix.	measure emissions of acetaldehyde	NCASI Method IM/CAN/WP-99.02 (IBR, see 40 CFR 63.14(f)); OR Method 320 in appendix A to 40 CFR part 63; OR the NCASI Method ISS/FP-A105.01 (IBR, see § 63.14(f)); OR Method 0011 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication No. SW-846); OR ASTM D6348-03 ^b (IBR, see 40 CFR 63.14(b)).
(6) each process unit required to be tested according to table 2A to this appendix.	measure emissions of acrolein	NCASI Method IM/CAN/WP-99.02 (IBR, see 40 CFR 63.14(f)); OR Method 320 in appendix A to 40 CFR part 63; OR the NCASI Method ISS/FP-A105.01 (IBR, see § 63.14(f)); OR ASTM D6348-03 ^b (IBR, see 40 CFR 63.14(b)).
(7) each process unit required to be tested according to table 2A to this appendix.	measure emissions of formaldehyde	NCASI Method IM/CAN/WP-99.02 (IBR, see 40 CFR 63.14(f)); OR Method 320 in appendix A to 40 CFR part 63; OR the NCASI Method ISS/FP-A105.01 (IBR, see § 63.14(f)); OR the NCASI Method CI/WP-98.01; OR Method 316 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); OR ASTM D6348-03 ^b (IBR, see 40 CFR 63.14(b)).
(8) each process unit required to be tested according to table 2A to this appendix.	measure emissions of phenol	NCASI Method IM/CAN/WP-99.02 (IBR, see 40 CFR 63.14(f)); OR Method 320 in appendix A to 40 CFR part 63; OR the NCASI Method ISS/FP-A105.01 (IBR, see § 63.14(f)); OR the NCASI Method CI/WP-98.01; OR ASTM D6348-03 ^b (IBR, see 40 CFR 63.14(b)).
(9) each process unit required to be tested according to table 2A to this appendix.	measure emissions of benzene	Method 18 in appendix A to 40 CFR part 60; OR NCASI Method IM/CAN/WP-99.02 (IBR, see 40 CFR 63.14(f)); OR Method 320 in appendix A to 40 CFR part 63; OR ASTM D6348-03 ^b (IBR, see 40 CFR 63.14(b)).
(10) each process unit that processes material containing MDI resin required to be tested according to table 2A to this appendix.	measure emissions of MDI	Method 320 in appendix A to 40 CFR part 63; OR Method 207 in appendix M to 40 CFR part 51; OR Conditional Test Method (CTM) 031 which is posted on http://www.epa.gov/ttn/emc/ctm.html
(11) each direct-fired process unit* required to be tested according to table 2A to this appendix.	measure emissions of the following HAP metals: Arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel.	Method 29 in appendix A to 40 CFR part 60 OR fuel analysis (see section 5(m) of this appendix).

TABLE 2B TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—EMISSION TEST METHODS—
Continued

For . . .	You must . . .	Using . . .
(12) each reconstituted wood product press or reconstituted wood product board cooler with a HAP control device.	meet the design specifications included in the definition of wood products enclosure in § 63.2292 of subpart DDDD of 40 CFR part 63; or determine the percent capture efficiency of the enclosure directing emissions to an add-on control device.	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 meet the definition of wood products enclosure or that meet Method 204 requirements for a 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 subpart DDDD.
(13) each reconstituted wood product press or reconstituted wood product board cooler required to be tested according to table 2A to this appendix.	determine the percent capture efficiency	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 subpart DDDD. 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. Fugitive emissions are equal to the difference in the emission rate and measured emissions.
(14) each process unit with a HAP control device required to be tested according to table 2A to this appendix.	establish the site-specific operating requirements (including the parameter limits or THC concentration limits) in table 2 to subpart DDDD.	data from the parameter monitoring system or THC CEMS and the applicable performance test method(s).

* Excludes direct-fired process units fired with only natural gas or propane.
^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.

TABLE 3 TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—MAXIMUM ALLOWABLE TOXICITY-WEIGHTED CARCINOGEN EMISSION RATE
[(lb/hr)($\mu\text{g}/\text{m}^3$)]

Stack height (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	8.72E-07	8.72E-07	8.72E-07	9.63E-07	1.25E-06	1.51E-06	2.66E-06	4.25E-06	4.39E-06	4.39E-06	4.39E-06	5.00E-06
10	2.47E-06	2.47E-06	2.47E-06	2.47E-06	2.47E-06	2.61E-06	3.58E-06	5.03E-06	5.89E-06	5.89E-06	5.89E-06	6.16E-06
20	5.81E-06	5.81E-06	5.81E-06	5.81E-06	5.81E-06	5.81E-06	5.90E-06	7.39E-06	8.90E-06	9.97E-06	9.97E-06	1.12E-05
30	7.74E-06	7.74E-06	7.74E-06	7.74E-06	7.74E-06	7.74E-06	8.28E-06	9.49E-06	1.17E-05	1.35E-05	1.55E-05	1.61E-05
40	9.20E-06	9.20E-06	9.20E-06	9.20E-06	9.20E-06	9.20E-06	9.24E-06	1.17E-05	1.34E-05	1.51E-05	1.98E-05	2.22E-05
50	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.36E-05	1.53E-05	1.66E-05	2.37E-05	2.95E-05
60	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.53E-05	1.76E-05	1.85E-05	2.51E-05	3.45E-05
70	1.23E-05	1.23E-05	1.23E-05	1.23E-05	1.23E-05	1.23E-05	1.23E-05	1.72E-05	2.04E-05	2.06E-05	2.66E-05	4.07E-05
80	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.92E-05	2.15E-05	2.31E-05	2.82E-05	4.34E-05
100	1.52E-05	1.52E-05	1.52E-05	1.52E-05	1.52E-05	1.52E-05	1.52E-05	1.97E-05	2.40E-05	2.79E-05	3.17E-05	4.49E-05
200	1.76E-05	1.76E-05	1.76E-05	1.76E-05	1.76E-05	1.76E-05	1.76E-05	2.06E-05	2.94E-05	3.24E-05	4.03E-05	5.04E-05

MIR=1E-06.

TABLE 4 TO APPENDIX B TO SUBPART DDDD OF 40 CFR PART 63—MAXIMUM ALLOWABLE TOXICITY-WEIGHTED NONCARCINOGEN EMISSION RATE
[(lb/hr)($\mu\text{g}/\text{m}^3$)]

Stack height (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	2.51E-01	2.51E-01	3.16E-01	3.16E-01	3.16E-01	3.16E-01	3.16E-01	3.46E-01	4.66E-01	6.21E-01	9.82E-01	1.80E+00
10	5.62E-01	5.62E-01	5.62E-01	5.62E-01	5.62E-01	5.62E-01	5.62E-01	5.70E-01	6.33E-01	7.71E-01	1.13E+00	1.97E+00
20	1.43E+00	1.43E+00	1.43E+00	1.43E+00	1.43E+00	1.43E+00	1.43E+00	1.43E+00	1.68E+00	1.83E+00	2.26E+00	3.51E+00
30	2.36E+00	2.36E+00	2.36E+00	2.36E+00	2.36E+00	2.36E+00	2.53E+00	3.04E+00	3.04E+00	3.33E+00	4.45E+00	5.81E+00
40	3.11E+00	3.11E+00	3.11E+00	3.11E+00	3.11E+00	3.11E+00	3.42E+00	4.04E+00	5.07E+00	5.51E+00	6.39E+00	9.63E+00
50	3.93E+00	3.93E+00	3.93E+00	3.93E+00	3.93E+00	3.93E+00	4.49E+00	4.92E+00	6.95E+00	7.35E+00	8.99E+00	1.25E+01
60	4.83E+00	4.83E+00	4.83E+00	4.83E+00	4.83E+00	4.83E+00	5.56E+00	6.13E+00	7.80E+00	1.01E+01	1.10E+01	1.63E+01
70	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	6.45E+00	7.71E+00	8.83E+00	1.18E+01	1.36E+01	1.86E+01
80	6.74E+00	6.74E+00	6.74E+00	6.74E+00	6.74E+00	6.74E+00	7.12E+00	9.50E+00	1.01E+01	1.29E+01	1.72E+01	2.13E+01
100	8.87E+00	8.87E+00	8.87E+00	8.87E+00	8.87E+00	8.87E+00	8.88E+00	1.19E+01	1.37E+01	1.55E+01	2.38E+01	2.89E+01
200	1.70E+01	1.70E+01	1.70E+01	1.70E+01	1.70E+01	1.70E+01	1.70E+01	2.05E+01	2.93E+01	3.06E+01	4.02E+01	4.93E+01

HI=1.

Environmental Protection Agency

Pt. 63, Subpt. DDDD, App. C

[71 FR 8375, Feb. 16, 2006]

APPENDIX C TO SUBPART DDDD OF PART 63—CONSIDERATIONS FOR A SMALL-SCALE KILN EMISSION TESTING PROGRAM

1.0 PURPOSE

Emissions test data from small-scale lumber kilns can be used to reasonably approximate emissions from full-scale lumber kilns if representative lumber samples are dried and the venting characteristics of the small-scale kiln mimic those of the full-scale kiln. This appendix provides a list of considerations that must be taken into account by facilities conducting small-scale lumber kiln emissions testing to approximate emissions from their full-scale lumber kilns for purposes of the low-risk demonstration described under appendix B to subpart DDDD of part 63.

The considerations described in this appendix apply only for small-scale lumber kiln emissions testing conducted to provide data for the low-risk demonstration described under appendix B to subpart DDDD of part 63. Permitting authorities may require different procedures for testing or estimating lumber kiln emissions for purposes other than the low-risk demonstration described under appendix B to subpart DDDD of part 63.

2.0 CONSIDERATIONS FOR LUMBER SAMPLES

2.1 A written plan must be developed for obtaining representative lumber samples to use as charges at the small-scale kilns. The plan must discuss how the samples are selected and handled and the basis upon which they are considered to be representative. If possible, information on the harvest site, date harvested, segregation from other lumber (if segregated), and processing at the sawmill must be included. If this information is unavailable, a general description of the sawmill's wood procurement and processing practices must be provided. The affected source and testing laboratory must approve the written test plan before beginning the small-scale kiln testing.

2.2 Samples must not be subject to significant air drying during processing, shipping, or storage prior to charging into the small-scale kiln.

2.3 Enough lumber must be collected to provide for extra lumber charges in case of testing failures.

2.4 Information on the lumber used for each small-scale kiln charge must be reported including the items in paragraphs 2.4.1 through 2.4.4 of this section:

2.4.1 Total kiln charge, board feet,

2.4.2 Nominal dimensions of lumber dried (for example, 2x4s),

2.4.3 Moisture content (dry basis) of the green lumber, and

2.4.4 Moisture content (dry basis) of the kiln dried lumber.

3.0 CONSIDERATIONS FOR KILN OPERATING PARAMETERS

The small-scale kiln must operate in a similar manner to the full-scale kilns for items 3.1 through 3.3 of this section. The small-scale kiln must operate in a reasonably consistent manner from charge-to-charge for all items (3.1 through 3.5) listed in this section.

3.1 Air velocity through the kiln charge.

3.2 Temperature profiles or kiln schedules (wet-bulb/dry-bulb temperatures throughout the kiln cycle).

3.3 Ending moisture content (dry basis) of the lumber (may need to be mathematically adjusted for small-scale kilns).

3.4 Kiln venting profile (trend) for the sample event/kiln cycle (normalized to a board foot or thousand board feet).

3.5 Mass emission rate profile (trend) for the sample event/kiln cycle.

4.0 CONSIDERATIONS FOR EMISSION SAMPLING

4.1 Sample equipment must be able to sample gases with high moisture content.

4.2 You must accurately measure/calculate total kiln exhaust and exhaust moisture content. If direct measurements are impractical other methods used must be explicitly discussed in the report.

4.3 You must accurately measure the concentration of the compounds of concern either in the kiln exhaust or at a proper location within the kiln.

5.0 CONSIDERATIONS FOR SAMPLE INTERVALS AND SAMPLING RUNS

5.1 A minimum of two full kiln cycles or batches must be tested to determine the emissions for a particular wood species or for a facility utilizing only one wood species.

5.2 You may use a single kiln cycle for emission values for wood species that require more than 3 days to dry.

5.3 Since kiln drying cycles typically exceed 20 hours, it is suggested that sampling be conducted in intervals throughout the drying cycle. Three hours provide a reasonable sample interval (sample run), but sampling equipment or manpower may dictate other schedules. Sampling equipment "turn-around" will result in gaps in the kiln emission data. The gaps must not exceed 45% of the kiln cycle. Data for the gaps occurring at certain periods of time in the drying cycle can be calculated by linear interpolation from the sampling values on either side of the gap. Other techniques may be required if the data gap occurs when the measured data

§ 63.2330

exhibit high levels of variability. As a minimum, sampling intervals must include initial hours of the kiln operating cycle once the kiln has warmed to target wet bulb and/or dry bulb temperatures and begins venting, hours of kiln operation during the middle of the kiln drying cycle, and hours of kiln operation towards the end of the kiln drying cycle.

5.4 The final production-based mass emission rate for the small-scale kiln sample event is determined by integrating the area under the mass emission rate profile curve.

6.0 CONSIDERATIONS FOR REPORTING

The emissions report must contain the information in paragraphs 6.1 through 6.9 of this section.

6.1 Graphical, charge-by-charge results for items 3.2, 3.4, and 3.5 above and numerical data for items 3.1 and 3.3. Describe how the full-scale kiln operates in comparison to the small-scale kiln in order to show that the full-scale kiln drying cycle was reasonably reproduced in the small-scale kiln.

6.2 A moisture balance by comparing the water loss (from the green versus dry lumber charge weight difference) to the water exhausted from the kiln (using the exhaust flow rate and moisture content of the exhaust).

6.3 A description of the sampling system and sampling methodology.

6.4 A summary and background data for all quality assurance measures required by the sampling methods.

6.5 Discussion of method detection limits and treatment of values below the detection limit.

6.6 An example of emission rate calculations.

6.7 Explanation or reference to the methodology used to calculate emissions to the target or desired ending lumber moisture content.

6.8 Information outlined in section 2.0 of this appendix, including a discussion of collection and handling of lumber samples.

6.9 Data and show calculations for developed emission factors.

7.0 GUIDANCE

7.1 NCASI Technical Bulletin 845 provides a large amount of detail that can be of assistance in many phases of a small-scale kiln testing program. This report should be viewed as "one way," not "the only way" to conduct testing.

7.2 Oregon State University, Mississippi State University, the University of Idaho, and others have published information regarding operation and testing of small-scale kilns. These publications are a very good source of information on small-scale kilns.

[71 FR 8387, Feb. 16, 2006]

40 CFR Ch. I (7-1-07 Edition)

Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

SOURCE: 69 FR 5063, Feb. 3, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

§ 63.2330 What is the purpose of this subpart?

This subpart establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations, operating limits, and work practice standards.

§ 63.2334 Am I subject to this subpart?

(a) Except as provided for in paragraphs (b) and (c) of this section, you are subject to this subpart if you own or operate an OLD operation that is located at, or is part of, a major source of HAP emissions. An OLD operation may occupy an entire plant site or be collocated with other industrial (*e.g.*, manufacturing) operations at the same plant site.

(b) Organic liquid distribution operations located at research and development facilities, consistent with section 112(c)(7) of the Clean Air Act (CAA), are not subject to this subpart.

(c) Organic liquid distribution operations do not include the activities and equipment, including product loading racks, used to process, store, or transfer organic liquids at facilities listed in paragraph (c) (1) and (2) of this section.

(1) Oil and natural gas production field facilities, as the term "facility" is defined in § 63.761 of subpart HH.

(2) Natural gas transmission and storage facilities, as the term "facility" is defined in § 63.1271 of subpart HHH.

APPENDIX C

Compliance Assurance Monitoring Plan

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

APPLICABILITY OF CAM RULE

The Compliance Assurance Monitoring (CAM) Plan for the facility is provided in this section of the permit application. These following sources fulfill the applicability criteria of the "CAM Rule" (40 Code of Federal Regulations (CFR) Part (§) 64):

- SN-04, L1 Weighed Fiber – PFF;
- SN-09, Cleanup and Shaveoff System – PFF;
- SN-12, Sawdust Pick-up – PFF;
- SN-13, Sander PFF's;
- SN-14, Trim & Fuel Silo PFF;
- SN-16, Dry Shavings PFF;
- SN-22, L1 Reject & Former Vacuum – PFF;
- SN-22a, L1 Former Vacuum Baghouse;
- SN-27, L2 Reject Cyclone – PFF;
- SN-28, L2 Former Vacuum – PFF;
- SN-29, Fiber Conditioner – PFFs (2); and
- SN-32, Reclaim Silo Baghouse.

Per §64.2(a), the aforementioned sources are regulated under the CAM Rule because they meet the following criteria: (1) each unit is subject to emission limitations for particulate matter (PM), (2) each source is equipped with a control device (i.e., baghouse, filter), and (3) each unit has potential pre-control emissions of PM that exceed the applicable major source threshold (i.e., 100 tons per year).

In accordance with §64.3, Flakeboard America, LLC. has developed a CAM Plan for the aforementioned sources. The Plan establishes the operating parameters that will be monitored in order to demonstrate compliance with the PM emission limits at each source. Flakeboard America LLC proposes to conduct weekly visible emission readings at each baghouse and filter vent.

GENERAL CRITERIA FOR CAM PLAN [PER §64.3(A)]

<u>Criteria</u>	<u>Description</u>
Emission Sources:	SN-04, SN-09, SN12, SN-13, SN-14, SN16, SN-22, SN-27, SN-28, SN-29
Pollutants:	Particulate Matter (PM and PM10)
Applicable Permit Requirements:	Opacity and PM Limits
Control Technology:	Pneumatic Fabric Filter
Control Efficiency:	99 % (estimated)
General Monitoring Approach:	Visible emission readings will be performed at each baghouse and filter. A routine equipment inspection and maintenance program will be followed.
Rationale for Monitoring Approach:	The absence of visible emissions is a good indicator of low PM emissions. If visible emissions appear to exceed the allowable limits, the corrective action will be implemented. If visible emissions are still observed, then a formal opacity observation using Environmental Protection Agency (EPA) Method #9 will be conducted to ensure compliance with the permit limits. Routine inspection of each system will ensure that the equipment operates properly and achieves the desired control efficiency for PM.
Indicator Monitored:	Opacity
Indicator Range:	Less than five percent (5%) opacity.

<u>Criteria</u>	<u>Description</u>
Emission Sources:	SN-22a, SN-32
Pollutants:	Particulate Matter (PM and PM10)
Applicable Permit Requirements:	Opacity and PM Limits
Control Technology:	Fabric Filter Baghouses
Control Efficiency:	99 % (estimated)
General Monitoring Approach:	Visible emission readings will be performed at each baghouse and filter. A routine equipment inspection and maintenance program will be followed.
Rationale for Monitoring Approach:	The absence of visible emissions is a good indicator of low PM emissions. If visible emissions appear to exceed the allowable limits, the corrective action will be implemented. If visible emissions are still observed, then a formal opacity observation using Environmental Protection Agency (EPA) Method #9 will be conducted to ensure compliance with the permit limits. Routine inspection of each system will ensure that the equipment operates properly and achieves the desired control efficiency for PM.
Indicator Monitored:	Opacity
Indicator Range:	Less than five percent (5%) opacity.

PERFORMANCE CRITERIA FOR CAM PLAN [PER §64.3(B)]

<u>Criteria</u>	<u>Description</u>
Specifications for Obtaining Representative Data:	Visible emission readings and opacity observations will be performed at each exhaust while the control device is in operation. Maintenance inspections will be conducted at each system.
Monitoring Frequency:	Visible emission readings will be conducted <u>weekly</u> at each exhaust. A full Method #9 opacity observation will be performed if visible emissions in excess of the permit limit are noted. Each system will be inspected <u>weekly</u> . Maintenance and repair will be performed on an as-needed basis.
Data Collection Procedures:	Trained plant operators will perform the weekly visible emission readings. Plant operators or third party contractors trained and certified in EPA Method #9 will conduct the 6-minute opacity observations (when necessary). Trained plant operators will perform the weekly inspections. Trained maintenance personnel will service and repair the systems on an as-needed basis.
Data Averaging Period:	Not applicable - Visible emission readings. Six (6) minutes - Opacity observations (Method #9).
Recordkeeping:	Records will be kept of all weekly visible emission readings. Records of all EPA Method #9 opacity observations (when performed) will be maintained. Records will be kept of all weekly equipment inspections and of any maintenance performed.
Verification Procedures to Confirm Oper. Status:	Not applicable.
QA/QC Practices:	Plant operators and maintenance personnel will be adequately trained. Maintenance and repair of systems will be performed in accordance with the manufacturer's specifications.

REGULATORY REFERENCES

- Compliance Assurance Monitoring Regulations (40 CFR §64)
- EPA Test Method #9 (40 CFR §60, Appendix A)
- Draft CAM Technical Guidance Document (EPA – August 1998)
- Title V Monitoring Reference Document (EPA – April 2001)

CERTIFICATE OF SERVICE

I, Pam Owen, hereby certify that a copy of this permit has been mailed by first class mail to
Flakeboard America, LLC, 1275 Willamette Road, Malvern, AR, 72104, on this 15th day
of December, 2008.

Pam Owen
Pam Owen, AAIL, Air Division