National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*
40 CFR Part 63, Subpart DDDD
(Promulgated July 30, 2004 [69 FR 45944] and amended February 16, 2006 [71 FR 8342])

Section	Section Title	Content
What This Subpart Covers		
63.2230	What is the purpose of this subpart?	Subpart establishes requirements for hazardous air pollutants (HAP) emitted from plywood and composite wood products (PCWP) manufacturing facilities.
63.2231	Does this subpart apply to me?	Applies to you if: (a) You own or operate PCWP manufacturing facility (described in this section); and (b) The PCWP manufacturing facility is located at a major source of HAP. - You are exempt if the Environmental Protection Agency (EPA) determines you are part of the low-risk subcategory of PCWP manufacturing facilities, as specified in appendix B of the rule.
63.2232	What parts of my plant does this subpart cover?	Applies to "new", "reconstructed", or "existing" affected sources (defined in 40 CFR Part 63, Subpart A: Part 63 General Provisions). "Affected source" is described as the collection of dryers, blenders, formers, presses, board coolers, and other process units associated with PCWP manufacturing.
63.2233	When do I have to comply with this subpart?	**New or Reconstructed Sources:** - If initial startup of affected source is before September 28, 2004, you must comply no later than September 28, 2004. - If initial startup of affected source is after September 28, 2004 you must comply upon initial startup. **Existing Sources:** No later than October 1, 2008. **Area Sources that Become Major Sources:** Must comply with this subpart by October 1, 2008 or upon initial startup as a major source, whichever is later. Some notifications are required to be submitted before you are required to comply with the compliance options, operating requirements, and work practice requirements of the rule.
Compliance Options, Operating Requirements, and Work Practice Requirements		
63.2240	What are the compliance options and operating requirements and how must I meet them?	**Meet <u>one</u> of the following compliance options for each process unit:** - **Production-Based Compliance Options (PBCO):** Total HAP lb/ thousand square feet (MSF) or oven-dried tons (ODT) specified by process unit in Tables 1A to this subpart. Add-on controls cannot be used to meet the PBCO. **-Add-On Control System Options (Table 1 B.):** - reduce emissions of total HAP, measured as THC (as carbon), by 90 percent; or - limit total HAP emissions, measured as THC (as carbon), to 20 ppmv, dry;

		- reduce methanol emissions by 90 percent; or - limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled emissions are greater than or equal to 10 ppmvd; or - reduce formaldehyde emission by 90 percent; or - reduce formaldehyde emissions by 90 percent or limit to less than or equal to 1 ppmvd if uncontrolled emissions are greater than or equal to 10 ppmvd. For reconstituted wood products presses and board coolers, if you choose to comply with the regulation by using one of the above-mentioned concentration options, 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. - **Emissions Averaging Option:** Existing (not new) sources have the option of complying by emissions averaging among process units. Formulas and restrictions for emissions averaging presented. - **Operating requirements** that correspond to the above compliance options are specified in Table 2.
63.2241	What are the work practice requirements and how must I meet them?	- You must meet the work requirements specified for existing or new process units (i.e., dry rotary dryers, hardwood veneer dryers, softwood veneer dryers, veneer redryers, Group 1 miscellaneous coating operations) in Table 3 of the rule; or you may apply for permission to use alternative work practices, as provided in §63.6(g) of the General Provisions. - 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 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 for softwood veneer heated zones instead of the work practices for hardwood veneer dryers or veneer redryers.
General Compliance Requirements		
63.2250	What are the general requirements?	- You must be in compliance at all times, with the exception of periods of SSM; prior to process unit initial start up; and during the routine control device maintenance exemption (RCDME). - You must operate and maintain your affected source according to §63.6(e)(1)(i) of the General Provisions. - You must develop a written SSMP according to §63.6(e)(3) of the General Provisions. - Requirements do not apply during times when the process unit(s) are not operating, during periods of startup, shutdown, and malfunction. Startup and shutdown periods must not exceed the minimum amount of time necessary. Shutoff of direct-fired burners resulting from partial and full production stoppages of direct-fired softwood veneer dryers or over-temperature events shall be deemed shutdowns and not malfunctions. Lighting or re-lighting any one or all gas burners in direct-fired softwood veneer dryers shall be deemed startups and not malfunctions.

63.2251	What are the requirements for the routine control device maintenance exemption?	- You may request and justify a routine control device maintenance exemption for events such as control device bakeouts, washouts, media replacement, and replacement of corroded parts. The exemption must not exceed operating up time percentages specified for differing process units in paragraphs (b)(1) and (b)(2) of this section (3 percent and 0.5 percent, respectively). - If the request is approved, it must be incorporated by reference in and attached to the affected source's title V permit. - 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. Emissions must be minimized to the greatest extent possible during these times. - Startup and shutdown of emission control systems must be scheduled during times when process equipment is shut down.
63.2252	What are the requirements for process units that have no control or work practice requirements?	Only the initial notification requirements in §63.9(b) apply for process units with no compliance options or work practice requirements (such as lumber kilns).
Initial Compliance Requirements		
63.2260	How do I demonstrate initial compliance with the compliance options, operating requirements, and work practice requirements?	- You must conduct performance tests and establish site-specific operating requirements to demonstrate compliance for your source, as specified in Tables 2 and 4 of the rule. - You must demonstrate initial compliance, as specified in Tables 5 and 6 of the rule. - You must submit the Notification of Compliance Status containing the initial compliance demonstration results.
63.2261	By what date must I conduct performance tests or other initial compliance demonstrations?	- Performance tests must be conducted 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 the requirements in §63.7(a)(2), whichever is later. - Initial compliance demonstrations that do not require performance tests must be conducted upon initial startup or no later than 30 calendar days after the compliance date that is specified for you source in §63.2233, whichever is later.

63.2262	How do I conduct performance tests and establish operating requirements?	- You must conduct each performance test in accordance with §63.7(e)(1) and as specified in this section, and according to the methods specified in Table 4 of the rule. - You must not conduct performance tests during periods of SSM, as specified in §63.7(e)(1). - You must test under representative operating conditions and explain why the conditions are representative in your performance test. - With the exception of capture efficiency testing, you must conduct at least 3 separate test runs lasting at least one hour each. Paragraph descriptors/titles follow: (b) Periods when performance tests must be conducted. (c) Number of test runs. (d) Location of sampling sites. (e) Collection of monitoring data. (f) Collection of production data. (g) Nondetect data. (h) Calculation of percent reduction across a control system. (i) Calculation of mass per unit production. (j) Thickness basis conversion. (k) Establishing thermal oxidizer operating requirements. (l) Establishing catalytic oxidizer operating requirements. (m) Establishing biofilter operating requirements. (n) Establishing operating requirements for process units meeting compliance options without a control device. (o) Establishing operating requirements using THC CEMS.
63.2263	Initial compliance demonstration for a dry rotary dryer.	Must demonstrate that dryer processes furnish with an inlet moisture content of less than or equal to 30 percent (by weight, dry basis) and operates with a dryer inlet temperature of less than or equal to 600 degrees F. - Must designate and clearly identify each dryer. - You must record the inlet furnish moisture content (dry basis) and inlet dryer operating temperature for a minimum of 30 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 certified Notification of Compliance Status report. - You must submit 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 degrees F in the future with your Notification of Compliance Status report.

63.2264	Initial compliance demonstration for a hardwood veneer dryer.	- You must record the annual volume percentage of softwood veneer species processed in the dryer using the equation provided. - You must designate and clearly identify each dryer. - You must submit the annual volume percentage of species dried in the dryer based on dryer production for 12 months prior to the compliance date specified for your source. - If you did not dry softwood species in the dryer during the 12 months prior to the compliance date, then you need only submit a statement saying so. - You must submit 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 with your Notification of Compliance Status.
63.2265	Initial compliance demonstration for a softwood veneer dryer.	- You must develop a plan for review and approval for minimizing fugitive emissions from the veneer dryer heated zones, and must submit the plan with your Notification of Compliance Status report.
63.2266	Initial compliance demonstration for a veneer redryer.	- You must record the inlet moisture content of the veneer processed in the redryer for a minimum of 30 days. - You must designate and clearly identify each redryer. - You must submit the highest recorded 24-hour average inlet veneer moisture content. - You must submit a signed statement by a responsible official that certifies with truth, accuracy, and completeness that your redryer will dry veneer with a moisture content less than 25 percent (by weight, dry basis) in the future with your Notification of Compliance Status report.
63.2267	Initial compliance demonstration for a reconstituted wood product press or board cooler.	- You must either use a wood products enclosure, or measure the capture efficiency of the capture device for the press or board cooler (new sources only) 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 the rule. - You must submit documentation that the enclosure meets the press enclosure design criteria, or the results of the capture efficiency verification with your Notification of Compliance Status report.
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. - The plan must be submitted with your Notification of Compliance Status report.
63.2269	What are my monitoring installation, operation, and maintenance requirements?	- You must install, operate, and maintain each continuous parameter monitoring system (CPMS) as specified in this section. Specifications are provided for temperature monitors, wood moisture monitors, and continuous emissions monitoring systems (CEMS).

Continuous Compliance Requirements		
63.2270	How do I monitor and collect data to demonstrate continuous compliance?	- You must conduct all monitoring in continuous operation at all times that the process unit is operating, except during monitor malfunctions, associated repairs, and required QA or control activities. - You may not use the following in data averages: (1) data recorded during monitoring malfunctions, associated repairs, out-of-control periods, and required quality assurance or control activities; (2) data during periods of startup, shutdown, and malfunction; or (3) data recorded during periods covered by a routine control device maintenance exemption. - You must use all data collected during all other periods in assessing compliance. - You must determine the 3-hour or 24-hour block averages of all recorded readings (excluding data exceptions cited in this section) calculated, as specified, in this section. - You must have at least 75 percent of the required recorded readings for an averaging period, based on valid data (excluding data exceptions cited in this section).
63.2271	How do I demonstrate continuous compliance with the compliance options, operating requirements, and work practice requirements?	- You must demonstrate continuous compliance with the compliance options, operating requirements, and work practice requirements in §§63.2240 and 63.2241 according to the methods specified in Tables 7 and 8. - You must report each instance in which you did not meet each compliance option, operating requirement, and work practice requirement. - Deviations that occur during a period of startup, shutdown and malfunction or by any approved RCDME are not violations if you can demonstrate that you were operating in accordance with §63.6(e) or with your approved RCDME, respectively.

Notifications, Reports, and Records		
63.2280	What notifications must I submit and when?	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) of the General Provisions: **Initial Notification**: no later than 120 calendar days after the effective date (60 days after publication in the Federal Register) of the subpart or after initial startup, whichever is later. **Notification of Intent to Conduct a Performance Test**: at least 60 calendar days before the performance test is scheduled to begin. **Notification of Compliance Status:** **no performance test** - before the close of business on the 30th calendar day following the completion of the initial compliance demonstration. **performance test** - must submit notification with performance test results, before the close of business on the 60th calendar day following the completion of the performance test **Request for a Routine Control Device Maintenance Exemption** - no later than 30 days before compliance date. **Application for Approval of Emissions Averaging Plan** - 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. **Other Notifications (modifications or replacement of control system, shutdown of process unit (included in emissions averaging plan), change of continuous monitoring parameter(s))** - must notify Administrator within 30 days before action taken.
63.2281	What reports must I submit and when?	You must submit each report in Table 9 of the rule, by the following dates: **First Compliance Report (Semi-annual)** - as specified in **Table 9**, covering a period of at least 6 mos, but less than 12 mos (ending June 30 or December 31st) - postmarked or delivered no later than July 31st or January 31st, respectively. **Subsequent Compliance Reports (Semi-annual)** - no later than July 31st or January 31st, respectively. Paragraphs (c) through (g) of this section specify what is to be contained in your compliance reports.
63.2282	What records must I keep?	You must keep the following records: - A copy of **each notification and report** submitted in compliance with the rule. - **Records required under §63.6(e)(3)(iii) through (v**) (related to SSM) of the General Provisions. - **Records relating to control device maintenance** and **documentation of your approved routine control device maintenance exemption** (if applicable) - **Records of performance tests and evaluations.** - **Records specified for each CEMS** - If you operate a catalytic oxidizer, you must keep records of annual catalyst activity checks and subsequent corrective actions - If you comply with the emissions averaging compliance option, records of emission debit and credit calculations must be kept.

63.2283	In what form and how long must I keep my records?	You must maintain you records in a form suitable and readily available for expeditious review. Each record must be maintained **for a period of 5 years on-site** following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records are to be maintained **on-site for 2 years** after each recording and can be maintained **off-site for the remaining 3 years**.
Other Requirements and Information		
63.2290	What parts of the General Provisions apply to me?	You are required to comply with the parts of the General Provisions in §§63.1 through 63.13, as specified in **Table 10.**
63.2291	Who implements and enforces this subpart?	- This subpart can be implemented and enforced by the U.S. EPA or a delegated authority, such as your State, local, or tribal agency. - Approval of alternatives to the compliance options, operating requirements, and work practice requirements can only be obtained from the U.S. EPA (such approval is not delegated). - Approval for major alternatives to the rule's test methods, monitoring, and/or recordkeeping and reporting can only be obtained from the U.S. EPA (such approval is not delegated). - Approval for eligibility for the low-risk subcategory developed according to appendix B of rule can only be obtained by the U.S. EPA (such approval is not delegated).

63.2292	What definitions apply to this subpart?	**The following terms are defined:** -Affected Source -Agricultural fiber -Biofilter -Capture device -Capture efficiency -Catalytic oxidizer -Combustion unit -Control device -Control system or add-on control system -Conveyor strand dryer -Conveyor strand dryer zone -Deviation -Direct-fired process unit -Dryer heated zones -Dry rotary dryer -Dry forming -Engineered wood product -Fiber -Fiberboard -Fiberboard mat dryer -Flame zone -Furnish -Glue-laminated beam -Green rotary dryer -Group 1 miscellaneous coating operations	-Hardboard -Hardboard oven -Hardwood -Hardwood veneer dryer -Kiln-dried lumber -Laminated strand lumber -Laminated veneer lumber -Lumber -Lumber kiln -Medium density fiberboard -Method detection limit -Miscellaneous coating operations -Molded particleboard -MSF -Nondetect data -Non-HAP coating -Oriented strandboard -Oven-dried tons -Parallel strand lumber -Partial wood products enclosure -Particle -Particleboard -Plywood -Plywood and composite wood products manufacturing facility -Press perdryer -Pressurized refiner -Primary tube dryer	-Process unit -Reconstituted wood product board cooler -Reconstituted wood product press -Representative operating conditions -Resin -Responsible official -Rotary strand dryer -Secondary tube dryer -Softwood -Softwood veneer dryer -Startup -Startup, initial -Startup, shutdown, and malfunction plan -Strand -Temporary total enclosure -Thermal oxidizer -Total hazardous air pollutant emissions -Tube dryer -Veneer -Veneer redryer -Wet control device -Wet forming -Wood I-joists -Wood products enclosure -Work practice requirement -1-hour period
Tables				
Table 1A	Production-Based Compliance Options	Contains production-based compliance options for fiberboard mat dryer heated zones (at new sources only), green rotary dryers, hardboard ovens, press predryers (at new sources only), pressurized refiners, primary tube dryers, secondary tube dryers, reconstituted wood product board coolers (at new sources only), reconstituted wood product presses, softwood veneer dryer heated zones, and rotary strand dryers. The production-based compliance options are on a total HAP basis. Total HAP, as defined in §63.2292, means for the purposes of this subpart, the sum of the emissions of the following six compounds: acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde.		

Table 1B	Add-On Control Systems Compliance Options	Contains six compliance options by using an emissions control system for fiberboard mat dryer heated zones (at new sources only), green rotary dryers, hardboard ovens, press predryers (at new sources only), pressurized refiners, primary and secondary tube dryers, reconstituted wood product board coolers (at new sources only), reconstituted wood product presses, softwood veneer dryer heated zones, rotary strand dryers, conveyor strand dryer zone one (at existing sources), and conveyor strand dryer zones one and two (at new sources).
Table 2	Operating Requirements	Contains operating requirements for operation of a thermal oxidizer; catalytic oxidizer; biofilter; control devices other than those mentioned; and for a process unit that meets a compliance option in Table 1A or debit-generating process unit.
Table 3	Work Practice Requirements	Contains work practice requirements for dry rotary dryers; hardwood veneer dryers; softwood veneer dryers; veneer redryers; and Group 1 miscellaneous coating operations.
Table 4	Requirements for Performance Tests	Contains performance test requirements. Specifies emissions test methods and procedures for determining capture efficiency for presses and board coolers.
Table 5	Performance Testing and Initial Compliance Demonstrations for the Compliance Options and Operating Requirements	Describes how to demonstrate initial compliance with the compliance options and operating requirements.
Table 6	Initial Compliance Demonstrations for Work Practice Requirements	Contains initial compliance demonstrations for work practice requirements.
Table 7	Continuous Compliance With the Compliance Options and Operating Requirements	Contains requirements for demonstrating continuous compliance with compliance options and operating requirements.
Table 8	Continuous Compliance With the Work Practice Requirements	Contains requirements for demonstrating continuous compliance with work practice requirements.
Table 9	Requirements for Reports	Contains requirements for reports.
Table 10	Applicability of General Provisions to Subpart DDDD	Contains applicability of the General Provisions to this rule.

Appendices		
Appendix A	Alternative Procedure to Determine Capture Efficiency From Enclosures Around Hot Presses in the Plywood and Composite Wood Products Industry Using Sulfur Hexafluoride Tracer Gas	Contains an alternative procedure to determine capture efficiency of a hot press enclosure in the PCWP industry using sulfur hexafluoride tracer gas.
Appendix B	Methodology and Criteria for Demonstrating That an Affected Source is Part of the Low-risk Subcategory of Plywood and Composite Wood Products Affected Sources	Provides the methodology and criteria for demonstrating that your affected source is part of the low-risk subcategory of plywood and composite wood products manufacturing facilities. You can do this by using either a look-up table analysis (based on the look-up tables included in the appendix) or using a site-specific risk assessment performed according to criteria specified in this appendix.
Appendix C	Considerations for a Small-Scale Kiln Emission Testing Program	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.

* This summary is not meant to replace the published regulation titled "National Emission Standard for Hazardous Air Pollutants (NESHAP): Plywood and Composite Wood Products NESHAP" (69 FR 45944, and amended in 71 FR 8342). This summary is merely an outline of the content of the regulation and does not cover all parts of the regulation.

An anonymous online feedback survey regarding this implementation tool is at: http://yosemite.epa.gov/oar/plywoodsurvey.nsf/survey1?openform