

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-06700095-2008**
Application Received: **September 20, 2006**
Plant Identification Number: **067-00095**
Permittee: **JELD-WEN, Inc. D.B.A. JELD-WEN**
Facility Name: **JELD-WEN, Wood Fiber Division**
Mailing Address: **Post Office Box 1769, Craigsville, WV 26205**

Physical Location: Craigsville, Nicholas County, West Virginia
UTM Coordinates: 529.8 km Easting • 4243.8 km Northing • Zone 17
Directions: From Rt. 19 North of Summersville, take Rt. 41 North to Rt. 55 East,
facility is approximately five miles and on the left.

Facility Description

The Wood Fiber Division – West Virginia facility operates under the primary SIC Code 2493 and the secondary SIC Code 2851. The facility manufactures door skins in a process similar to the hardboard manufacturing process. The fiber-containing material, or furnish, consists of green poplar chips. The furnish is mechanically separated into fiber by the refiner and is then dried in a tube drier. Next, the fiber is blended with a “no added formaldehyde” resin, and a fiber mat is formed. The mat continues into a cold pre-compressor, which is followed by trimming operations. The mat is then consolidated in a steam-heated press. After the press, the door skins are cut to the final dimensions and painted with waterborne primer.

A wood-fired boiler that burns residuals from the production process, as well as purchased hogged-fuel, generates steam. Additional combustion sources include a natural gas-fired back-up boiler and natural gas heated ovens associated with the priming operations. The fiber dryer is heated by both steam and natural gas (direct-fired).

Regulated air pollutants emitted from sources at the facility include PM, PM10, NOx, CO, SO2, VOCs, and HAPs.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2006 Actual Emissions
Carbon Monoxide (CO)	59.1	25.1
Nitrogen Oxides (NO _x)	133.5	48.8
Particulate Matter (PM ₁₀)	27.7	11.01
Total Particulate Matter (TSP)	40.3	16.02
Sulfur Dioxide (SO ₂)	6.65	0.6
Volatile Organic Compounds (VOC)	156.7	51.25

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2006 Actual Emissions
Formaldehyde	26.7 (1.45)*	2.13
Methanol	25.1 (20.24)**	1.43
Total of misc. non-major HAP	9.33 [from Permit R13-2192I]	0.22
Total HAP	61.13 (31.02)	3.78

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 133 tons per year NO_x, 156.7 tons per year VOC, 26.7* tons per year of Formaldehyde and 25.1** tons per year of Methanol. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, JELD-WEN is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**The facility will begin using a "no added formaldehyde" resin beginning September 1, 2008 reducing the formaldehyde PTE to approximately 1.45 tons per year.*

***As of September 1, 2008 the methanol PTE will be 20.24 tpy as limited by Permit R13-2192I.*

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:

45CSR2

To Prevent And Control Particulate Air Pollution From
 Combustion Of Fuel In Indirect Heat Exchangers

45CSR6

Open burning prohibited.

45CSR7	To Prevent And Control Particulate Matter Air Pollution From Manufacturing Processes And Associated Operations
45CSR10	To Prevent And Control Air Pollution From The Emission Of Sulfur Oxides
45CSR11	Standby plans for emergency episodes.
45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation
45CSR16	Standards Of Performance For New Stationary Sources Pursuant To 40 CFR Part 60
45CSR30	Operating permit requirement.
45CSR34	Emission Standards For Hazardous Air Pollutants For Source Categories Pursuant To 40 CFR Part 63
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 82, Subpart F	Ozone depleting substances
40 C.F.R. Part 63, Subpart DDDD	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products
40 C.F.R. Part 63, Subpart QQQQ	National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products
40 C.F.R. Part 63, Subpart HHHHH	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing

State Only:

45CSR4 No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2192I	July 16, 2008	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

The changes to the March 22, 2002 Title V Permit and/or Fact Sheet consist of the following:

Permit R13-2192D has been superseded and replaced. The current active version is R13-2192I.

45CSR2 - To Prevent And Control Particulate Air Pollution From Combustion Of Fuel In Indirect Heat Exchangers

The references to the July 31, 1974 (obsolete previous SIP) version of Rule 2 have been eliminated since a newer SIP version of this rule is in effect.

The 45CSR§2-4.1.b. PM emission limits for emission points *E5*, *E6* and the 40 CFR 60 Subpart Dc PM emission limit for *E5* have been streamlined with the more stringent PM₁₀ limits of permit R13-2192. Although the Rule 2 limits and Subpart Dc limits are for total PM, the potential PM emissions from these emission points as listed in the Title V application are PM₁₀, thereby allowing for the streamlining. Compliance will be demonstrated through testing and record keeping as outlined in the Rule 13 permit.

45CSR7 - To Prevent And Control Particulate Matter Air Pollution From Manufacturing Processes And Associated Operations

The 45CSR§7-4.1 PM emission limits for emission points *E4*, *E7*, *E8*, *E9*, *E10*, *E11a*, *E11b*, *E12*, *E13* have been streamlined with the more stringent PM₁₀ limits of permit R13-2192. Although the Rule 7 limits are for total PM, the potential PM emissions from these points as listed in the Title V application are PM₁₀, thereby allowing for the streamlining.

45CSR10 - To Prevent And Control Air Pollution From The Emission Of Sulfur Oxide

The references to the October 16, 1978 (obsolete previous SIP) version of Rule 10 have been eliminated since a newer SIP version of this rule is in effect.

The 45CSR§10-3.3.f. SO₂ emission limits for emission points *E5* and *E6* have been streamlined with the more stringent SO₂ limits of Permit R13-2192. Compliance will be demonstrated through testing and record keeping as outlined in the Rule 13 permit.

45CSR13 - Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation (Permit R13-2192I)

Section 4 of this permit contains requirements (primarily from the previous version of R13-2192) that will be in effect and applicable until September 1, 2008. Starting on September 1, 2008 the requirements in Section 5 of this permit will be in effect and applicable, rendering the Section 4 requirements as obsolete and no longer applicable. The anticipated issuance of the Title V permit (R30-06700095-2008) will occur after September 1, 2008. Therefore, only the Section 5 requirements are included in the Title V permit.

Section 5 of R13-2192I requires that a “no added formaldehyde” (NAF) resin be used in the manufacturing process which contains maximum methylene diphenyl diisocyanate (MDI) content of 38% by weight and 0% Formaldehyde by weight. It also limits Furnish Dryer throughput, Door Skin production rate and Hogged Door skin production rate as well as the usage of resin, wax and primer. Emission limits for criteria pollutants and HAPs are established for various pieces of equipment and facility wide emissions limits are established for styrene, formaldehyde (excluding the natural gas combustion), methanol and VOC. Monitoring, Recording and Testing methods are established in R13-2192 to demonstrate compliance.

The most recent test results for boiler B1 indicate that the emissions of CO, NOx and VOC are well below the permitted limits (< 50%). Therefore, the only testing requirements will be at the request of the Secretary or a duly authorized representative of the Secretary. Monitoring and record keeping of the boiler exhaust oxygen content will be used for compliance demonstration.

45CSR27 - To Prevent And Control The Emissions Of Toxic Air Pollutants

With the switch to NAF resin, this rule is no longer applicable to tanks *ST1*, *ST2*, and *ST3*.

40 CFR Part 64 - Compliance Assurance Monitoring (CAM)

This facility has pollutant specific emissions units (PSEUs) for particulate matter (PM) meeting the applicability requirements of 40 C.F.R. §64.2 and therefore has submitted CAM plans in accordance with the CAM rule.

The submitted plans meet the requirements of the CAM rule for the baghouses BH1a, BH1b, BH1c, BH2, BH3 and BH4 controlling PM. Since the existing Title V permit specifies a continuous compliance determination method for PM emissions, from the Hogged Fuel Boiler B1 (E5) Electrostatic Precipitator (ESP) the ESP is exempt from 40 CFR Part 64 per §64.2(b)(vi) for PM.

Monitoring per the CAM Plans for PM emissions will be as follows:

Note: The corresponding permit conditions are italicized in parentheses.

	Indicator No. 1	Indicator No. 2
I. Indicator	Pressure drop - (5.2.7.) / Visual inspections (5.2.6)	Visible Emissions - (5.3.2.)
Measurement Approach	Pressure drop is read daily and manually recorded. - (5.2.7.)	Method 22-like observations will be performed. - (5.3.2.)
II. Indicator Range	An excursion is defined as pressure drop below 0.2 inches of H ₂ O and above 4.0 inches of water- (5.2.7.)	An excursion is defined as opacity greater than 20% opacity. - (5.3.2.)
III. Performance Criteria	Pressure drop measurements are taken across the baghouse. - (5.2.7.)	VE observations are made at the baghouse vent exhaust (5.3.2).
A. Data Representativeness		
B. Verification of Operational Status	<i>Does not apply to existing non-modified monitoring equipment.</i>	<i>Does not apply to existing non-modified monitoring equipment.</i>
C. QA/QC Practices and Criteria	The observer will be familiar with the pressure drop operating range and the proper operation of the baghouse. The pressure gauges will be inspected for proper operation- (5.2.7.)	The observer will be familiar with Reference method 22 and follow Method 22-like procedures (5.3.2.)
D. Monitoring Frequency	Daily readings / quarterly inspections- (5.2.7 & 5.2.6.)	Weekly observations. - (5.3.2.)
Data Collection Procedures	Manual log entries - (5.2.7.)	Manual log entries - (5.4.3.)
Averaging Period	Non applicable.	Not applicable.

40 CFR 63 Subpart DDDD (Plywood and Composite Wood Products MACT)

JELD-WEN was in the process of demonstrating that this facility was a part of the low risk subcategory of Plywood and Composite Wood Products manufacturing facilities as specified in Appendix B of Subpart DDDD which would have exempted them from applicability to the requirements of this subpart. However, the low risk subcategory portion of this Subpart DDDD was vacated by the United States Court of Appeals for the District of Columbia Circuit. Therefore, the facility applied for a compliance date extension to meet the technology based requirements of the rule and was granted a conditional extension by the WVDAQ on January 25, 2008 for the Fiber Dryer (D1) and Reconstituted Wood Product Press (PV). The permittee must comply with the extension provisions by October 1, 2008, unless granted a written alternative emission standard from USEPA.

The company has identified the rotary valve supplying the pressurized refiner as being subject to the provisions of this Subpart. The production based compliance option will be used to demonstrate compliance. Performance tests as per this subpart to demonstrate initial compliance and to establish monitoring parameters have not been done. Therefore a compliance plan has been added in Section 5.6. of the permit.

40 CFR 63 Subpart QQQQ (Surface Coating of Wood Building Products MACT)

This facility uses only non-HAP primers in its door skin surface coatings operation; therefore, the compliant materials option is being utilized to demonstrate compliance with this MACT. The initial compliance status notification requirements have been met. The facility shall submit semi-annual reports and maintain records as applicable in §§63.4730 and 63.4731 as required within this subpart.

40 CFR 63, Subpart DDDDD (Industrial, Commercial, and Institutional Boilers and Process Heaters MACT)

On July 30, 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the Boiler MACT. As a result of the court's decision, a MACT for this source category will have to be implemented via a 112(j) case-by-case MACT determination or a subsequent 40 C.F.R. 63 proposal. Per DAQ's "Interim Guidance for Existing Sources - Boiler and Process Heater MACT Vacature," dated September 7, 2007, the DAQ does not intend to implement the provisions of the Boiler and Process Heater MACT for existing sources at this time. US EPA will be issuing guidance regarding the 112(j) case-by-case MACT determination of equivalent emission limitation in the future. Due to these facts, 40 C.F.R. 63, Subpart DDDDD placeholder language has not been included in the permit.

40 CFR 63 Subpart HHHHH (Miscellaneous Coating Manufacturing MACT)

This facility manufactures a water-based paint primer for use at this facility and other JELD-WEN plants. Both the raw materials and the primer product contain <1% HAP by weight. No halogenated materials are used in this process; therefore, no halogenated vent streams exist at the coating manufacturing facility. The storage tanks used for the coatings manufacturing process are group 2 storage tanks. The wastewater stream used for the coatings manufacturing process is a group 2 wastewater stream. The transfer operation used for the coatings manufacturing process is a group 2 transfer operation. No requirements are specified in Subpart HHHHH for group 2 storage tanks, wastewater streams, or transfer operations. Sections 63.8075(d)(2)(iv), (v), and (vi) do not apply to this facility.

Since JELD-WEN produces only extremely low HAP coatings (less than the 1% by weight) at its surface coatings manufacturing operation, the compliant materials option is being utilized as an alternative to the requirements of Table 1 as specified in §63.8055(a) of Subpart HHHHH. Semi-annual

compliance reporting containing the information outlined in §63.8075(e) is required. Initial notifications including the compliance status report have been submitted.

Records of all documentation supporting initial notifications and notifications of compliance status under 40 CFR § 63.9 shall be maintained on site.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

Unchanged from the March 22, 2002 Title V Permit and Fact Sheet except that the tanks *ST1*, *ST2*, and *ST3* and no longer subject to 45CSR27 due to the switch to NAF resin usage.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: August 6, 2008
Ending Date: September 5, 2008

All written comments should be addressed to the following individual and office:

Frederick Tipane
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Frederick Tipane
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
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Response to Comments (Statement of Basis)

Not applicable.