STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

January 17, 2011

Frank R. Bennett, President
Bennett Lumber Products, Inc.
PO Box 130
Princeton, Idaho 83857

RE: Facility ID No. 057-00008, Bennett Lumber Products, Inc., Princeton
Final Permit Letter

Dear Mr. Bennett:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2007.0107 Project 60629 to Bennett Lumber Products, Inc. located at Princeton for updated scrubber description verbiage and inclusion of MACT, subpart ZZZZ for the emergency engine. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received November 17, 2010.

This permit is effective immediately and replaces PTC No. P-2007.0107, project 60527, issued on August 2, 2010. This permit does not release Bennett Lumber Products, Inc. from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

Both the Tier I operating permit and this Permit To Construct were processed concurrently and they do not contravene any existing permit conditions; therefore, the process or equipment may be operated in accordance with the permit to construct.

Pursuant to the Construction and Operation Notification General Provision of your permit, it is required that construction and operation notification be provided. Please provide this information as listed to DEQ's Lewiston Regional Office, 1118 F Street, Lewiston, Idaho 83501, Fax (208) 799-3451.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Amber Rand, Air Quality Analyst, at (208) 799-4370 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Eric Clark at (208) 373-0502 or Eric.Clark@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\EC

Permit No. P-2007.0107 PROJ 60629

Air Quality

PERMIT TO CONSTRUCT

State of Idaho
Department of Environmental Quality

PERMIT No.: P-2007.0107
FACILITY ID No.: 057-00008
AQCR: 62 **CLASS:** A **ZONE:** 11
SIC: 2421 **NAICS:** 321999
UTM COORDINATE (km): 517.4, 5195.7

1. **PERMITTEE**
Bennett Lumber Products, Inc.

2. **PROJECT**
Permit To Construct Revision, P-2007.0170, project 60629

3. **MAILING ADDRESS**	**CITY**	**STATE**	**ZIP**
P. O. Box 130	Princeton	ID	83857
4. **FACILITY CONTACT**	**TITLE**	**TELEPHONE**	
Jeff Abbott	Plant Engineer	(208) 875-1121	
5. **RESPONSIBLE OFFICIAL**	**TITLE**	**TELEPHONE**	
Frank R. Bennett	President	(208) 875-1121	
6. **EXACT PLANT LOCATION**		**COUNTY**	
3759 Highway 6, Princeton (Three miles east of Princeton)		Latah	

7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**
Sawmill producing dimensional lumber, wood chips, hog-fuel, and wood shavings

8. **PERMIT AUTHORITY**

This permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200 through 228, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes in design, equipment or operations may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 through 228 of the Rules for the Control of Air Pollution in Idaho.

Eric E. Clark

ERIC CLARK, PERMIT WRITER
DEPARTMENT OF ENVIRONMENTAL QUALITY

Mike Simon

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE MODIFIED/REVISED:	January 17, 2011
DATE ISSUED:	January 13, 2005

Table of Contents

List of Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BDT	bone dry tons
BLP	Bennett Lumber Products, Inc.
Btu	British thermal unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
ft	feet
ft^2	square feet
ft/sec	feet per second
gpm	gallons per minute
gr/dscf	grains (1 lb = 7,000 grains) per dry standard cubic foot
GT/yr	green tons per year
HAPs	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
K	degrees Kelvin
km	kilometer
lb/hr	pound per hour
LHV	lower heating value
LS	lumber scale
m	meter(s)
m^2	square meter(s)
m/sec	meters per second
MACT	Maximum Achievable Control Technology
MMBF/hr	million board feet (of lumber) per hour
MMBF/yr	million board feet (of lumber) per consecutive 12-calendar month period
MMBtu	million British thermal units
$\mu g/m^3$	micrograms per cubic meter
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO_2	sulfur dioxide
SO_x	sulfur oxides
ST	Storage source (emissions)
T/yr	tons per year
TR	Transfer source (emissions)
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PERMIT SCOPE

Purpose

1.1 The scope of the permit revision is to correct some typographical errors. This permit revision is to an existing Permit to Construct, issued August 2, 2010. The permittee has requested some verbiage throughout the permit be consistent with language used in the associated Tier I CAM plan. Rather than using the term venturi when referring to the scrubber, it has been replaced with ID Fan (scrubber inlet). This is more consistent with the actual process and terminology used at the plant. Also, the emergency fire pump requirements as defined in NESHAP, Subpart ZZZZ were included. No other changes were requested.

1.2 Those permit conditions that have been modified or revised by this permitting action are identified by a date citation located directly under the permit condition and on the right hand margin.

1.3 This PTC modification replaces the following permits, the terms and conditions of which shall no longer apply:

- Tier II Operating Permit and Permit to Construct No. T2-010208, issued January 13, 2005.
- PTC No. P-050206, issued October 6, 2005, to construct Kiln No. 7.
- PTC No. P-2007.0107, issued October 7, 2009 to increase kilns and boiler throughputs.
- PTC No. P-2007.0107 project 60527, issued August 2, 2010 to modify data collection frequency during performance tests.

Regulated Sources

1.4 Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2	Wood handling, conveying, screening, and storage	None
3	Hog-Fuel Boiler	Multiclone and Wet Scrubber with cyclone separator
4	Lumber Dry Kilns	None
5	Sawmill and planers	Baghouses and cyclones
6	Fire Pump Engine (emergency generator)	None

[January 17, 2011]

2. FACILITY-WIDE CONDITIONS

Note: Refer to the facility-wide requirements in the facility's Tier I operating permit.

Facility-Wide Limits on Hazardous Air Pollutant Emissions

2.1 Facility-wide emissions in any consecutive 12-calendar months shall not exceed 9.49 tons of any hazardous air pollutant (HAP), and 24.49 tons for all HAPs combined.

[October 7, 2009]

2.2 MACT 40 CFR 63, Subpart A – General Provisions for Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)

The permittee must comply with the requirements in General Provisions of 40 CFR 63, Subpart A. Generally applicable reporting, recordkeeping and notification requirements of Subpart A of the MACT, 40 CFR 63 are included in Table 2.1. These summaries are provided to highlight the notification and recordkeeping requirements of 40 CFR 63 for affected facilities, and are not intended to be a comprehensive listing of all general provision requirements that may apply nor do the summaries relieve the permittee from the responsibility to comply with all applicable requirements of the CFR. Should there be a conflict between these summaries and the MACT, the MACT shall govern. The permittee is encouraged to read all of 40 CFR 63 Subpart A.

Table 2.1 Subpart A to 40 CFR Part 63 Subpart ZZZZ – Summary of Applicable Requirements of MACT 40 CFR 63 Subpart A-General Provisions

Citation	Subject	Explanation
40 CFR 63.1(a)(1)-(12)	General Applicability	
40 CFR 63.1(b)(1)-(3)	Initial Applicability Determination	Applicability of subpart ZZZZ is also specified in 40 CFR 63.6585
40 CFR 63.1I(1)	Applicability After Standard Established	
40 CFR 63.1I(2)	Applicability of Permit Program for Area Sources	
40 CFR 63.1I(5)	Notifications	
40 CFR 63.2	Definitions	Additional definitions are specified in 40 CFR 63.6675.
40 CFR 63.3(a)–(c)	Units and Abbreviations	
40 CFR 63.4(a)(1)–(5)	Prohibited Activities	
40 CFR 63.4(b)–(c)	Circumvention/Fragmentation	
40 CFR 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	
40 CFR 63.6(b)(1)-(7)	Compliance Dates for New and Reconstructed Sources	40 CFR 63.6595 specifies the compliance dates.
40 CFR 63.6I(1)-(5)	Compliance Dates for Existing Sources	40 CFR 63.6595 specifies the compliance dates.
40 CFR 63.6(f)(2)-(3)	Methods for Determining Compliance	
40 CFR 63.6(g)(1)-(3)	Use of an Alternative Standard	
40 CFR 63.6(i)(1)-(16)	Extension of Compliance	
40 CFR 63.6(j)	Presidential Compliance Exemption	
40 CFR 63.8	Monitoring Requirements	40 CFR 63.6625 specifies appropriate monitoring requirements
40 CFR 63.9(a)-(e), (g)-(j)	Notification Requirements	40 CFR 63.645 specifies notification requirements.
40 CFR 63.10(a)	Recordkeeping/Reporting—Applicability and General Information	
40 CFR 63.10(b)(1)	General Recordkeeping Requirements	Additional requirements are specified in

Citation	Subject	Explanation
		40 CFR 63.6655
40 CFR 63.10(b)(2)(xii)	Waiver of recordkeeping requirements	
40 CFR 63.10(b)(2)(xiv)	Records supporting notifications	
40 CFR 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	
40 CFR 63.10(d)(1)	General Reporting Requirements	Additional requirements are specified in 40 CFR 63.6650
40 CFR 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	
40 CFR 63.10(f)	Recordkeeping/Reporting Waiver	
40 CFR 63.12	State Authority and Delegations	
40 CFR 63.13	Addresses of State Air Pollution Control Agencies and EPA Regional Offices	
40 CFR 63.14	Incorporation by Reference	
40 CFR 63.15	Availability of Information/Confidentiality	

[January 17, 2011]

3. ZURN INDUSTRIES HOG-FUEL BOILER

3.1 Process Description

Bark from the log debarking process is sent to a bark hog where it is reduced to a size appropriate for use as boiler fuel and conveyed to the main fuel conveyor (TR10). Sawdust from the sawmill and shavings from the planing mills are also conveyed to the main fuel conveyor to be used as boiler fuel. The Zurn Industries hog-fuel boiler is an Erie City Type C, three-drum water tube boiler using a spreader-stoker firing method, with ash reinjection and four (4) manually-operated soot blowers. The boiler is designed to continuously provide 60,000 pounds per hour of saturated steam at 250°F to the lumber drying kilns.

[October 7, 2009]

3.2 Emission Control Description

Table 3.1 ZURN HOG-FUEL BOILER DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device
Hog-Fuel Boiler	Multiclone in series with a Wet Scrubber with cyclone separator

[January 17, 2011]

Emission Limits

3.3 Emission Limits

3.3.1 The PM_{10} and CO emissions from the hog-fuel boiler stack shall not exceed any corresponding emissions rate limits listed in Table 3.2.

Table 3.2 HOG-FUEL BOILER EMISSIONS LIMITS

Source Description	PM_{10}[c]		CO
	lb/hr[a]	T/yr[b]	T/yr[b]
Zurn hog-fuel boiler	27	99.48	249

[a] Pound per hour, as determined by a pollutant-specific U.S. EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

[b] Tons per any consecutive 12-calendar months, as determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

[c] Includes condensables.

[October 7, 2009]

3.3.2 **PM Emission Limit (IDAPA Grain Loading Standard)**

The permittee shall not discharge into the atmosphere from any fuel burning equipment in operation prior to October 1, 1979, or with a maximum rated input of less than 10 million Btu per hour, particulate matter in excess of 0.200 gr/dscf corrected to 8% oxygen while combusting wood fuel.

[October 7, 2009]

Operating Requirements

3.4 Fuel Type

The hog-fuel boiler shall be fueled exclusively by wood products.

[October 7, 2009]

3.5 Steam Production and Steaming Rate Limits

3.5.1 The permittee shall install, operate, calibrate, and maintain a device to continuously monitor the steam production rate of the Zurn Industries hog fuel boiler. If the continuous steaming rate measurement system becomes inoperable, a backup monitoring method consisting of manual hourly readings or calculations shall be implemented within 96 hours of the continuous steaming rate measurement system becoming inoperable, and shall be used until the original system is operational.

[October 7, 2009]

3.5.2 On a 24-hour average, the operational steaming rate shall be maintained at or below the lesser of:

- 60,000 pounds of steam per hour,
- A maximum steaming rate in pounds per hour based on the average one-hour steaming rate attained during the most recent performance test conducted pursuant to this permit which demonstrated compliance with the PM_{10} lb/hr emissions limit, calculated as follows:

$$Max.\ steaming\ rate = Avg.\ steaming\ rate\ during\ test \times \frac{27\ lb/hr\ PM10}{Tested\ lb/hr\ PM10}$$

- A maximum rate in pounds per hour based on the average one-hour steaming rate attained during the most recent performance test conducted pursuant to this permit which demonstrated compliance with the grain loading emissions limit, calculated as follows:

$$Max.\ steaming\ rate = Avg.\ steaming\ rate\ during\ test \times \frac{0.20\ gr/dscf\ @\ 8\%\ Oxygen}{Tested\ grain\ loading\ @\ 8\%\ Oxygen}$$

The permittee may conduct additional performance tests during the permit term to revise the allowable steaming rate so long as the performance tests conform to all requirements of this permit. Whenever the steaming rate exceeds the allowable steaming rate, the permittee shall take corrective action within a reasonable time, but no longer than 24 hours from the discovery of the exceedance, to bring the steaming rate to the allowable rate or below. Deviations from this allowable operating rate shall not constitute a violation of this permit, unless the permittee fails to take corrective action or an emission standard prescribed in this permit is exceeded. DEQ may consider the frequency, duration, or magnitude of the deviations to determine if additional action is required.

[October 7, 2009]

3.6 Multiclone and Wet Scrubber Operations

3.6.1 The permittee shall install and operate a multiclone in series with a wet scrubber and cyclone separator to control the emissions from the hog fuel boiler.

[October 7, 2009]

3.6.2 The multiclone and wet scrubber shall be in operation at all times during operation of the hog fuel boiler.
[October 7, 2009]

3.6.3 The permittee shall install, operate, calibrate, and maintain a device to continuously monitor the ID fan outlet (scrubber inlet) pressure and the pressure drop across the hog fuel boiler multiclone during operation of the hog fuel boiler.
[January 17, 2011]

3.6.4 The permittee shall install, operate, calibrate, and maintain a device to continuously measure the scrubbing media flow rate in gallons per minute.
[Tier II/PTC No. T2-010208, 1/13/05]

3.7 Performance Testing Operations

The permittee may conduct additional performance tests during the permit term to revise the allowable ID fan outlet (scrubber inlet) pressure or the minimum scrubbing media flow rate so long as the performance tests conform to all the requirements of this permit and the performance tests demonstrate compliance with the PM_{10} pound per hour limit and the grain loading standard for the Zurn hog-fuel boiler while operating at the alternative operating parameters.

- The performance test shall be conducted in accordance with the Test Methods and Procedures specified in the Rules (IDAPA 58.01.01.157) and in accordance with a DEQ-approved source test protocol.
- The permittee may request to operate outside of the operating parameters specified by the manufacturer during the performance test by submitting a written source test protocol to DEQ for approval and requesting to operate under alternative operating parameters for the duration of the test.
- The protocol shall describe how the operating parameters will be monitored during the performance test.
- Once the source test is completed the permittee may request in writing to operate in accordance with alternative operating parameters. The request shall include a source test report and justification for the alternative operating parameters.

[January 17, 2011]

Monitoring and Recordkeeping Requirements

3.8 Performance Testing

3.8.1 The permittee shall conduct a performance test on the Zurn hog-fuel boiler to demonstrate compliance with the opacity limit, the PM_{10} lb/hr emissions limit, and the grain loading standard, and to determine the CO one-hour average emission rate.

The permittee shall test in accordance with IDAPA 58.01.01.157 and the conditions of this permit including the operating requirements for the Zurn hog-fuel boiler and General Provision 6. General Provision 6 includes notification requirements, testing procedures, and reporting requirements.

The source test shall be conducted under "worst case normal" conditions as required by IDAPA 58.01.01.157 and General Provision 6 and the source test report shall contain documentation that the test was conducted under these conditions.

The following information, at a minimum, shall be recorded during each performance test run and included in the performance test report:

- The steam production rate of the boiler shall be recorded in pounds per hour;
- The pressure drop across the multiclone and the ID fan outlet (scrubber inlet) pressure shall be recorded in inches of water at least once each 15 minutes during each test run;
- The scrubbing media flow rate shall be recorded in gallons per minute once each 15 minutes during each test run;
- Visible emissions from the boiler stack shall be observed and recorded during each test run, using the methods specified in IDAPA 58.01.01.625.

[January 17, 2011]

3.8.2 After the initial performance test, future testing shall be performed according to the following schedule. If the PM or PM_{10} emission rate measured in the most recent test is less than or equal to 75% of the applicable emission limit, the next test shall be conducted within five years of the test date. If the PM or PM_{10} emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the applicable emission limit, the next test shall be conducted within two years of the test date. If the PM or PM_{10} emission rate measured during the most recent performance test is greater than 90% of the applicable emission limit, the next test shall be conducted within one year of the test date.

[October 7, 2009]

3.8.3 After the initial performance test, future testing shall be performed according to the following schedule. If the CO emission rate measured in the most recent test is less than 43 lb/hr, no further testing shall be required. If the CO emission rate measured during the most recent performance test is equal to or greater than 43 lb/hr, the next test shall be conducted within five years of the test date.

[October 7, 2009]

3.9 Maintain Copy of Source Tests

A copy of the most recent DEQ-approved source test for each pollutant tested and a copy of the corresponding DEQ review/approval letter which contains the permit number shall remain onsite at all times and shall be made available to Department representatives upon request.

3.10 HAPs Monitoring

The permittee shall calculate and record the emissions of methanol and total HAPs from the hog-fuel boiler on a monthly basis, in units of tons per month and tons for the most recent consecutive 12-calendar month period. These totals shall be combined with the methanol and total HAPs emissions from the kilns for the same period to demonstrate compliance with the facility-wide HAPs limits.

[October 7, 2009]

3.11 Steam Production Monitoring for Boiler

3.11.1 The permittee shall monitor and record the daily steam production of the boiler to demonstrate compliance with the steam production limit. Each month, the permittee shall sum the daily steam production for that month and for the previous 12 consecutive calendar-month period. Records shall be maintained on site and shall be made available to DEQ representatives upon request.

[October 7, 2009]

3.11.2 The permittee shall calculate the annual PM_{10} emissions as follows:

- Multiply the total monthly steam produced by the emission factor derived from the most recent Department-approved source test. The emission factor shall be in pounds of PM_{10} per pound of steam produced during the test.

- Sum the monthly PM_{10} emissions derived above for each 12-consecutive calendar month period.

3.11.3 The permittee shall calculate the annual CO emissions as follows:

- Multiply the total monthly steam produced by the emission factor derived from the most recent Department-approved source test. The emission factor shall be the pounds of CO per pound of steam produced during the test.

- Sum the monthly CO emissions derived above for each 12-consecutive calendar month period.

[October 7, 2009]

4. DRYING KILNS

4.1 Process Description

Green lumber of various wood species processed that has been sorted and debarked, then squared in the sawmill, is stacked in the drying kilns. Indirect heat (i.e., steam from the Zurn hog-fuel boiler) is supplied to these single- and double-track drying kilns to reduce the moisture content in the green lumber from approximately 43% to 47% to a pre-determined moisture level, usually about 19%.

4.2 Emission Control Description

Table 4.1 DRYING KILN DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device
Lumber drying kilns No. 1 through No. 7	None

[October 7, 2009]

Emission Limits

4.3 Emission Limits

4.3.1 The PM_{10} and VOC emissions from the Kilns 1 through 7 vents (combined) shall not exceed any corresponding emissions rate limits listed in Table 4.2.

Table 4.2 DRYING KILN EMISSIONS LIMITS

Source Description	PM_{10} T/yr	VOC T/yr
Lumber Drying Kilns 1 through 7 combined emissions	3.94	110.3

[October 7, 2009]

4.3.2 In accordance with IDAPA 58.01.01.702, the permittee shall not discharge into the atmosphere from any source operating prior to October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 17,000 pounds per hour,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 17,000 pounds per hour,

$$E = 1.12(PW)^{0.27}$$

[October 7, 2009]

4.3.3 In accordance with IDAPA 58.01.01.701, the permittee shall not discharge to the atmosphere from any source operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 9,250 pounds per hour,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 9,250 pounds per hour,

$$E = 1.10(PW)^{0.25}$$

[October 7, 2009]

Operating Requirements

4.4 Throughput Limits – Kilns 1 through 7, Combined

The throughput through Kilns 1 through 7 combined shall not exceed 157,585 thousand board feet (lumber scale) in any consecutive 12-calendar months.

[October 7, 2009]

4.5 Temperature Monitoring – Kilns 1 through 7

The permittee shall install, calibrate, maintain, and operate a device on each kiln to measure and record the kiln temperature.

[October 7, 2009]

Monitoring and Recordkeeping Requirements

4.6 Throughput Monitoring by Wood Species

Each month, the permittee shall monitor and record the combined throughput of Kilns 1 through 7 in board feet (lumber scale) for each species of wood processed and the total of all wood species processed for that month and for the most recent consecutive 12-calendar month period.

[October 7, 2009]

4.7 HAPs Monitoring

The permittee shall calculate and record the emissions of methanol and total HAPs from all of the lumber drying kilns on a monthly basis, in units of tons per month and tons for the most recent consecutive 12-calendar month period. These totals shall be combined with the methanol and total HAPs emissions from the hog-fuel boiler for the same period to demonstrate compliance with the facility-wide HAPs limits. HAPs emissions from the kilns shall be calculated using the equation given below and the emission factors listed in Table 4.1. If at any time during the drying time for each load, the temperature is equal to or greater than 200°F, the factor for > 200°F shall be used to calculate emissions for that load. Use of alternate emission factors requires prior DEQ approval.

$$HAP = \sum_{i=1}^{n} (X_i \times Y_i) \times (ton/2000\ lbs)$$

Where:

HAP = Kiln Emissions of a specific HAP or total HAP in tons per month
N = Number of types of wood dried
X_i = Throughput of lumber of type i dried in all kilns in thousand board feet (MBF) per month
Y_i = HAP emission factor for lumber of type i

Table 4.3 KILN HAP EMISSION FACTORS

Wood Species	Max. Kiln Temp	Methanol (lb/MBF)	Total HAP (lb/Mbf)
Douglas Fir	< 200 °F	0.038	0.097
Douglas Fir	> 200 °F	0.057	0.116
White Fir	< 200 °F	0.122	0.1824
White Fir	> 200 °F	0.183	0.2434
Ponderosa Pine	< 200 °F	0.065	0.1135
Ponderosa Pine	> 200 °F	0.144	0.1889
Lodgepole Pine	< 200 °F	0.055	0.0736
Lodgepole Pine	> 200 °F	0.060	0.0786

[October 7, 2009]

4.8 Temperature Monitoring

Once each hour, the permittee shall monitor and record the temperature of each kiln during normal drying operations (for any day that that kiln is in use) to determine the correct HAP emission factor to use for calculating emissions. Alternatively, in lieu of tracking temperature, the higher emission factor shall be used to calculate emissions.

[October 7, 2009]

5. WOODWORKING EQUIPMENT

5.1 Process Description

Woodworking equipment includes the sawmill and the two planing mills.

Heavy sawdust from the sawmill is transferred by conveyor (TR8) to a sawdust cyclone (P7) or sawdust cyclone target box (P21). Material collected from the P7 sawdust cyclone is conveyed to the hog-fuel boiler. Material collected from the P21 target box is loaded into the sawdust truck bin (ST2) with a bottom drop to trucks (TR14).

Light sawdust from the sawmill is routed first through a baghouse (P24) and then to a baghouse cyclone (P6). Material collected in the baghouse cyclone is conveyed to the hog-fuel boiler.

Shavings from the old and new planing mills are collected in shavings cyclones (P11) and (P12), respectively. The collected material from these two cyclones is conveyed to shavings cyclone (P14) or to shavings cyclone (P13). Material collected from P14 is conveyed to the hog-fuel boiler. Material collected from P13 is loaded into the truck shavings bin (ST6) with a bottom drop to trucks (TR16).

5.2 Emission Control Description

Table 5.1 WOODWORKING EQUIPMENT DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device
Sawmill	Cyclones, baghouses, target box

Emission Limits

5.3 In accordance with IDAPA 58.01.01.702, the permittee shall not discharge into the atmosphere from any source operating prior to October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 17,000 pounds per hour,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 17,000 pounds per hour,

$$E = 1.12(PW)^{0.27}$$

[October 7, 2009]

5.4 In accordance with IDAPA 58.01.01.701, the permittee shall not discharge into the atmosphere from any source operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 9,250 pounds per hour,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 9,250 pounds per hour,

$$E = 1.10(PW)^{0.25}$$

[October 7, 2009]

Operating Requirements

5.5 The permittee shall install and operate cyclones and baghouse/filter system(s) to control emissions from woodworking equipment at this facility.

[October 7, 2009]

5.6 **Cyclone and Baghouse/Filter System Procedures**

Within 60 days of permit issuance, the permittee shall have developed a Cyclone and Baghouse/Filter System Procedures document for the inspection and operation of the cyclones and baghouses/filter system(s) which controls the PM and PM_{10} emissions from woodworking equipment at this facility. The document shall describe the procedures that will be followed to comply with General Provision 2 and shall contain, at a minimum, requirements for monthly inspections of the cyclones and baghouse(s). The inspection procedures shall include, but not be limited to:

- A visible emissions observation while operating;
- If visible emissions are present the opacity of the visible emissions shall be determined in accordance with procedures contained in IDAPA 58.01.01.625;
- Checking the bags or cartridges for structural integrity; and
- Checking to assure that bags or cartridges are appropriately secured in place.

The Baghouse/Filter System Procedures document shall also include a schedule and procedures for corrective action that will be taken if:

- Visible emissions are determined to be 10% opacity or greater;
- Bags or cartridges are ruptured; or
- Bags or cartridges are not appropriately secured in place.

The Permittee shall maintain records of the results of the baghouse/filter system inspection in accordance with General Provision 7. The records shall include a description of any corrective action that was taken, whether visible emissions were present, and if visible emissions were present the results of visible emission observation as determined by procedures contained in IDAPA 58.01.01.625.

The Cyclone and Baghouse/Filter System Procedures document shall be submitted to DEQ within 60 days of permit issuance for review and comment and shall contain a certification by a responsible official. Any changes to the Cyclone and Baghouse/Filter System Procedures document shall be submitted within 15 days of the change. The Cyclone and Baghouse/Filter System Procedures document shall also remain on site at all times and shall be made available to DEQ representatives upon request.

[October 7, 2009]

5.7 The operating and monitoring requirements specified in the Cyclone and Baghouse/Filter System Document are incorporated by reference to this permit and are enforceable permit conditions.

[October 7, 2009]

6. EMERGENCY FIRE PUMP (NESHAP ZZZZ REQUIREMENTS)

6.1 Process Description

The permittee shall comply with all applicable requirements of 40 CFR 63, Subpart ZZZZ and all applicable general provisions of 40 CFR 63 Subpart A.

Subpart ZZZZ applies to the existing stationary Reciprocating Internal Combustion Engine (RICE) located at area source of HAP emissions. Subpart ZZZZ applies to the existing emergency compression ignition with a rated capacity of 270 bhp. Bennett Lumber Products maintains a John Deere, 6081AF001, 270 bhp compression ignition engine onsite for emergency purposes.

[January 17, 2011]

6.2 Compliance Date

In accordance with 40 CFR 63.6595(a)(1), the affected source must comply with the applicable emission and operating limitations of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ by May 3, 2013.

[January 17, 2011]

Operating Requirements

6.3 Emissions and Operating Limitations

In accordance with 40 CFR 63.6603(a), on and after May 3, 2013, the following emission limits or operating restrictions are required for the engine. The permittee must meet the following requirements, except during periods of startup.

- Change oil and filter every 500 hours of operation or annually, whichever comes first.
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[January 17, 2011]

6.4 On and after May 3, 2013, the permittee shall operate and maintain the diesel engine(s) and associated pollution control equipment (where applicable) in a manner that minimizes emissions. Nothing further is required to reduce emissions other than what is necessary to meet the appropriate limitation in the Emissions Limitations permit condition in accordance with 40 CFR 63.6605.

[January 17, 2011]

Monitoring and Maintenance Requirements

6.5 In accordance with 63.6625(e)(3) and Table 6 of the subpart, on and after May 3, 2013, the permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[January 17, 2011]

6.6 In accordance with 63.6625(f), on and after May 3, 2013, an existing emergency stationary RICE located at an area source of HAP emissions must install a non-resettable hour meter if one is not already installed.

[January 17, 2011]

6.7 On and after May 3, 2013, the engine's time spent at idle during startup shall be minimized to a period needed for appropriate and safe loading of the engine, but not to exceed 30 minutes, after which time the emission standards associated with this permit apply in accordance with 40 CFR 63.6625(h).

[January 17, 2011]

6.8 In accordance with 40 CFR 63.6625(i), on and after May 3, 2013, the permittee has the option of implementing an oil analysis program to extend the specified oil change frequency in the Emissions and Operating Limitations permit condition. The oil analysis must be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The limits for these parameters are as follows: Total Base Number is less than 30% of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20% from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[January 17, 2011]

6.9 In accordance with 40 CFR 63.6640(f), the permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii). The paragraphs are as follows:

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) The permittee may operate the emergency RICE for the purposes of maintenance checks and readiness testing, provided the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.

(iii) The permittee may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hour per year provided for maintenance and testing.

[January 17, 2011]

Recordkeeping Requirements

6.10 In accordance with 40 CFR 63.6655(e), the permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following Rice; (1) an existing stationary emergency RICE, (2) an existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

In accordance with 40 CFR 63.6655(f), an existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If engines are used for demand response, the permittee must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

All records shall be readily accessible in hard copy or electronic form for a minimum of five (5) years after the date of each occurrence, measurement, maintenance procedure, corrective action or report in accordance with 40 CFR 63.6660.

[January 17, 2011]

7. SUMMARY OF EMISSION RATE LIMITS

Table 6.1 EMISSION LIMITS

Source Description	HAPs	PM_{10}[c]		CO	VOC
		lb/hr[a]	T/yr[b]	T/yr[b]	T/yr
Zurn Industries Hog Fuel Boiler	Any HAP: 9.49 T/yr	27.0	99.48	249	---
Drying Kilns 1 through 7, combined	All HAPs: 24.49 T/yr	3.94	---	---	110.3

[a] As determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

[b] As determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

[c] Includes condensibles

8. PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.

[Idaho Code §39-101, et seq.]

2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]

3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

   a. Enter upon the permittee's premises where an emissions source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;

   b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

   d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:

   a. A notification of the date of initiation of construction, within five working days after occurrence;

   b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

   c. A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;

d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and

e. A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211, 5/1/94]

Performance Testing

6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

   All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

   Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed 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. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[IDAPA 58.01.01.130-136, 4/5/00]

Certification

9. All documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

10. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

11. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

12. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

13. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]