



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

1410 NORTH HILTON • BOISE, IDAHO 83706 • (208) 373-0502

JAMES E. RISCH, GOVERNOR  
TONI HARDESTY, DIRECTOR

July 10, 2006

**Certified Mail No. 7005 1160 0000 4700**

Scott Atkison, CEO  
Bennett Forest Industries  
171 Highway 95 N  
Grangeville, Idaho 83530

RE: Facility ID No. 049-00003, Bennett Forest Industries, Grangeville  
Final Permit to Construct No. P-050214

Dear Mr. Atkison:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-050214 to Bennett Forest Industries, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on October 21, 2005. This permit is effective immediately and replaces PTC No. P-040214, issued July 29, 2005, the terms and conditions of which no longer apply. This permit does not release Bennett Forest Industries from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Lewiston Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations 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 call Dan Pitman at (208) 370500 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer, Administrator  
Air Quality Division

MB/DP/bf

Permit No. P-050214

Enclosures

**c:**       **Hudson Mann, Lewiston Regional Office**  
          **Dan Pitman, Permit Coordinator**  
          **Ken Hanna, Permit Writer**  
          **Marilyn Seymore/ Pat Rayne, Air Quality Division**  
          **Laurie Kral, US EPA Region 10**  
          **Permit Binder**  
          **Source File**  
          **Phyllis Heitman (Ltr Only)**  
          **Reading File (Ltr Only)**



**Air Quality  
PERMIT TO CONSTRUCT**

**State of Idaho  
Department of Environmental Quality**

**PERMIT No.:** P-050214

**FACILITY ID No.:** 049-00003

**AQCR:** 63

**CLASS:** A

**SIC:** 2421

**ZONE:** 11

**UTM COORDINATE (km):** 566.2, 5087.7

**1. PERMITTEE**

Bennett Forest Industries

**2. PROJECT**

Sawmill - dimensional lumber

**3. MAILING ADDRESS**

Rt. 1 Box 2L

**CITY**

Grangeville

**STATE**

ID

**ZIP**

83530

**4. FACILITY CONTACT**

Michael Scott Atkison

**TITLE**

CEO

**TELEPHONE**

(208) 983-0012

**5. RESPONSIBLE OFFICIAL**

Michael Scott Atkison

**TITLE**

CEO

**TELEPHONE**

(208) 983-0012

**6. EXACT PLANT LOCATION**

Highway 95, milepost 240.8

**COUNTY**

Idaho

**7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**

Sawmill - dimensional lumber

**8. PERMIT AUTHORITY**

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, 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 of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

  
TONI HARDESTY, DIRECTOR  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**DATE ISSUED:** July 10, 2006

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## Acronyms, Units, and Chemical Nomenclature

AQCR	Air Quality Control Region
Bldg	building
Btu	British thermal unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
gr/dscf	grain (1 lb = 7,000 grains) per dry standard cubic foot
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
lb/mbf	pounds of emissions per thousand board feet of lumber
mbf	thousand board feet of lumber
mfr	manufacturer
MMBtu	million British thermal units
MMBtu/hr	million British thermal units per hour
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
SIC	Standard Industrial Classification
SM	synthetic minor
T/R	transformer/rectifier
T/yr	tons per year
UTM	Universal Transverse Mercator

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER P-050214**

<b>Permittee:</b>	Bennett Forest Industries	<b>Facility ID No.:</b> 049-00003	<b>Date Issued:</b>	July 10, 2006
<b>Location:</b>	Grangeville, Idaho			

**1. PERMIT SCOPE**

**Purpose**

- 1.1 The purpose of this permit to construct (PTC) is for the addition of new sawmill equipment to the existing facility including saws, planning equipment, and material handling equipment for logs, boards, hogged materials, sawdust and chips. This PTC is also for the addition of two new kilns and an increase in the allowable production rate for all five kilns and increased steam production from the Wellons boiler.
- 1.2 This PTC replaces PTC No. P-040214, issued July 29, 2005, to Bennett Forest Industries, the terms and conditions of which shall no longer apply.

**Regulated Sources**

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

**Table 1.1 SUMMARY OF REGULATED SOURCES**

<b>Permit Section</b>	<b>Source Description</b>	<b>Emissions Control(s)</b>
3	<u>Hog Fuel Boiler</u> Manufacturer: Wellons Model No.: 2DS2C8.0A Rated steam rate: 80,000 pounds per hour Fuel value: 8,750 Btu per dry pound	<u>Multiclone</u> Manufacturer: Wellons Model No.: W-144 Air flow rate: 64,500 CFM at sea level & 350 °F.  <u>Electrostatic Precipitator</u> Manufacturer: Wellons Model No.: Size No. 9 No. of T/R sets: 2
4	<u>Three Moore Dry Kilns</u> Manufacturer: Moore Length: 88 feet	Uncontrolled
4	<u>Two Wellons Dry Kilns</u> Manufacturer: Wellons Length: 88 feet	Uncontrolled
4	Cyclone 11 - Sawmill Sawdust	<u>Baghouse</u> Manufacturer: Clarke Sheet Metal Model No.: CSM 60-20
2	Cyclone 12 - Sawmill Sawdust	Uncontrolled
2	Cyclone 41 - Saw Sharpening Grindings	Uncontrolled
2	Cyclone 71 - Planer Chip Bin	Uncontrolled
4	Cyclone 72 - Planer Shavings	<u>Baghouse</u> Mfr: Clarke Sheet Metal Model No.: unknown
2	Cyclone 73 - Planer Shavings Truck Bin	Uncontrolled
2	Cyclone 74 - Rosebud Bldg Planer Shavings (non-point source; vents into bldg)	Uncontrolled
2	<u>Fugitive Dust Sources</u> Includes but not limited to: roads, saws, debarker, disc screen, conveyors, material transfer/drop points, etc.	Dust control in accordance with a Fugitive Dust Control Plan

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## **2. FACILITY-WIDE CONDITIONS**

### ***Fugitive Emissions***

- 2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne as required in IDAPA 58.01.01.651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. To establish reasonable precautions, the Permittee shall develop, maintain and implement a Fugitive Dust Control Plan which identifies potential sources of fugitive dust and which establishes good operating practices for limiting the formation and dispersion of dust from those sources. The approved Fugitive Dust Control Plan is part of the terms and conditions of the permit.

The Fugitive Dust Control Plan (Plan) shall contain, at a minimum, the following information and requirements:

1. A general description of the potential sources of fugitive dust from the facility.
2. Application of water from a water truck, or a suitable dust suppressant (e.g., magnesium chloride), for control of dust on haul roads and loading areas. The Plan must establish criteria to determine when water and/or dust suppressant must be applied. Water does not need to be applied when the surface is wet (i.e. during/following rainy conditions) or when reduced ambient temperatures may cause the water to freeze. The applicant may choose to use surface improvements to existing roads, such as paving, in lieu of water application where appropriate to control fugitive dust.
3. Procedures for installing and using hoods, fans, fabric filters, or equivalent systems, where practical, to enclose/capture and vent the handling of dusty materials.
4. Procedures for covering, open-bodied trucks transporting materials likely to give rise to airborne dusts, paving roadways, and maintaining them in a clean condition, where practical.
5. Establish procedures for promptly removing earth or other stored material from streets, where practical.
6. Establish procedures to minimize dust formation during conveying operations such as installing sides/covers on conveyors, installation/use of a target box(es), and minimizing material drop heights.
7. Training/orientation of employees about the Fugitive Dust Control Plan procedures.
8. The initial Fugitive Dust Control Plan shall be submitted to DEQ for review and approval no later than 30 days after the issuance date of this permit. After approval of the initial plan, the permittee may update the plan at any time by submitting the proposed changes to DEQ for review and approval. The updated plan shall not become effective until approved by DEQ.
9. When in operation, the permittee shall comply with the provisions in the approved Fugitive Dust Control Plan at all times. Whenever an operating parameter is outside the operating range specified by the plan, the permittee shall take corrective action as expeditiously as practicable to bring the operating parameter back within the operating range.
10. A copy of the Fugitive Dust Control Plan shall remain onsite at all times.

- 2.2 The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.

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- 2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- 2.4 The permittee shall conduct a monthly facility-wide inspection of potential sources of fugitive emissions, during daylight hours and under normal operating conditions, to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

**Odors**

- 2.5 The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.
- 2.6 The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

**Visible Emissions**

- 2.7 The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO<sub>x</sub>, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.
- 2.8 The permittee shall conduct a monthly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each Method 9 opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

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<b>Location:</b>	Grangeville, Idaho			

***Excess Emissions***

- 2.9 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.

***Open Burning***

- 2.10 The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, Rules for Control of Open Burning.

***Performance Testing***

- 2.11 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 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.

***Monitoring and Recordkeeping***

- 2.12 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 two 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.

The permittee is not required to conduct the monitoring and associated recordkeeping for any emission unit if the emissions unit did not operate at any time between required monitoring events, provided the following conditions are met:

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- The permittee makes a contemporaneous record in the log or file maintained on site of the date and time that the emission unit ceased operation, and the reason why the emission unit did not operate.
- The permittee makes a contemporaneous record in a log or file maintained on site of the date and time that the emission unit resumed operation

***Reports and Certifications***

- 2.13 Any reporting required by this permit, including but not limited to, records, monitoring data, supporting information, requests for confidential treatment, notifications of intent to test, testing reports, or compliance certifications, 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. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance  
Department of Environmental Quality  
Lewiston Regional Office  
1118 F Street  
Lewiston, ID 83501  
Phone: (208) 799-4370                      Fax: (208) 799-3451

***Fuel-burning Equipment***

- 2.14 The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.080 gr/dscf of effluent gas corrected to 8% oxygen by volume for wood products.

***Tier I Operating Permit Application***

- 2.15 The permittee shall submit to DEQ a complete application for an original Tier I operating permit within 12 months of operational start-up of the new Wellons kiln, in accordance with IDAPA 58.01.01.313.01.b.

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**3. HOG FUEL BOILER**

**3.1 Process Description**

The Wellons hog fuel-fired boiler supplies up to 80,000 pounds per hour of steam to five kilns which are used to dry lumber. The rated heat input capacity of the boiler is 116 million Btu/hr.

**3.2 Emission Control Description**

The PM and PM<sub>10</sub> emissions from the boiler are controlled by a multiclone and an electrostatic precipitator (ESP).

**Table 3.1 HOG FUEL BOILER DESCRIPTION**

<b>Emissions Unit(s) / Process(es)</b>	<b>Emissions Control Device</b>
Hog fuel boiler	Multiclone and electrostatic precipitator

***Emission Limits***

**3.3 PM<sub>10</sub> Emission Limit**

Emissions of PM<sub>10</sub> from the boiler stack shall not exceed 6.6 pounds per hour (lb/hr).

**3.4 Particulate Matter Emission Limit in Accordance with 40 CFR 60.43b(c)(1)**

Particulate matter emissions from the boiler shall not exceed 0.1 pounds per million Btu of heat input in accordance with 40 CFR 60.43b (c) (1). Compliance shall be determined by a performance test as specified in 40 CFR 60.8.

**3.5 Opacity Limits**

3.5.1 On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8, whichever date comes first, the boiler shall not discharge into the atmosphere any gases that exhibit greater than 20% opacity (six-minute average), except for one six-minute period per hour of not more than 27% opacity, in accordance with 40 CFR 60.43b(f).

The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction in accordance with 40 CFR 60.43b(g).

3.5.2 The permittee shall not discharge any air pollutant to the atmosphere from the boiler stack for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO<sub>x</sub>, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

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<b>Location:</b>	Grangeville, Idaho			

***Operating Requirements***

**3.6 Fuel Type**

The permittee shall fire the boiler exclusively with wood products.

**3.7 Daily Steam Production Limit**

The amount of steam produced by the boiler shall not exceed 1.92 million pounds of steam per day.

**3.8 Control Device Requirements**

3.8.1 A multiclone and an ESP shall be used to control PM and PM<sub>10</sub> emissions from the boiler. The multiclone and the ESP shall be maintained in good working order and operated as efficiently as practical in accordance with the Operations and Maintenance (O&M) manual specifications required by Permit Condition 3.14 and General Provision 2.

3.8.2 For the ESP, the permittee shall install, maintain, and operate, in accordance with the O&M manual specifications, equipment to measure the secondary voltage, amperage, and power (where power equals the voltage multiplied by the amperage) applied by each transformer/rectifier (T/R) set to the discharge electrodes, and the spark rate, to demonstrate compliance with Permit Condition 3.8.3.

3.8.3 The secondary voltage, amperage and power applied by each T/R set to the discharge electrodes, and the spark rate, of the ESP shall be maintained within O&M manual specifications. Documentation of O&M manual voltage, amperage, power input and spark rate specifications shall remain on site at all times and shall be made available to DEQ representatives upon request.

**3.9 Continuous Opacity Monitoring System**

3.9.1 For the boiler, the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system in accordance with 40 CFR 60.48b(a) or per an EPA-approved alternative.

3.9.2 The COMS data shall be reduced and recorded in such a manner that compliance with all applicable opacity standards can be demonstrated.

***Monitoring and Recordkeeping Requirements***

**3.10 Steam and Fuel Monitoring and Recordkeeping Requirements**

3.10.1 The permittee shall monitor and record the total pounds of steam produced by the boiler on a daily basis. Records shall be kept on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

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<b>Location:</b>	Grangeville, Idaho			

3.10.2 For purposes of complying with the requirements under 40 CFR 60.49b(d), the permittee is not required to monitor the amount of wood combusted each day or to calculate the annual capacity factor for wood in accordance with the alternative method approved by EPA Region 10 in a letter issued to Bennett Forest Industries on October 4, 2005.

**3.11 PM Compliance Testing Requirements-NSPS**

Within 60 days after achieving the maximum production rate at which the boiler will be operated, but not later than 180 days after initial startup of the boiler and at such other times as may be required by the Environmental Protection Agency (EPA) under section 114 of the Act, the permittee shall conduct performance test(s) and furnish the EPA a written report of the results of such performance test(s) in accordance with 40 CFR 60.8 or per an EPA-approved alternative. The permittee shall also provide a copy of the results of any testing done per this permit condition to DEQ in accordance with Permit Conditions 2.11 and 2.13.

The performance testing is to determine compliance with the particulate matter emissions limits and opacity specified in Permit Conditions 3.4 and 3.5.1.

**3.12 PM and PM<sub>10</sub> Performance Test**

Within 60 days after achieving the maximum production rate at which the boiler will be operated, but not later than 180 days after initial startup of the boiler, and at least once every five years thereafter, the permittee shall conduct a performance test to measure PM and PM<sub>10</sub> emissions from the boiler stack. The test shall be conducted to demonstrate compliance with the emission rate limits specified by Permit Conditions 2.14, 3.3, and 3.5.2. Each performance test conducted to demonstrate compliance shall be performed in accordance with IDAPA 58.01.01.157, and the following information shall be complied with during each test run:

- Visible emissions from the boiler stack shall be observed and recorded using the methods specified in IDAPA 58.01.01.625 to demonstrate compliance with Permit Condition 3.5.2.
- The boiler shall be operated at the worst case normal feed material throughput rate during the performance test. A description of how this requirement was met shall be included in the performance test report.
- The following parameters shall be monitored and recorded during each PM and PM<sub>10</sub> performance test on the boiler stack:
  - Wood-waste fuel analysis including percent moisture and Btus per pound
  - Amount of steam produced in units of pounds of steam per hour, and
  - Secondary voltage, amperage, and power input to each T/R set of the ESP and the spark rate (where power = secondary voltage times secondary current).

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<b>Location:</b>	Grangeville, Idaho			

**3.13 Monitoring Requirement**

When the boiler is operating, the permittee shall monitor and record the secondary voltage, amperage and power applied by each T/R set to the discharge electrodes, and the spark rate at least once every four hours. The units of measure and averaging time of measurements of secondary voltage, amperage, power, and spark rate recorded shall be consistent with O&M manual units of measure. A compilation of the most recent two years of voltage, amperage, power and spark rate records shall be kept at the facility and shall be made available to DEQ representatives upon request.

**3.14 Operations and Maintenance Manual Requirements**

Operation and Maintenance manuals (or a single manual) shall be developed and maintained for the boiler, the multiclone, and the ESP. The permittee shall develop and maintain an O&M manual for the multiclone and the ESP according to manufacturer specifications and recommendations. The manual(s) shall be revised within 30 days of issuance of this permit to incorporate the modifications made as part of this permit modification. This manual shall describe the methods and procedures that will be followed to assure the boiler, multiclone, and the ESP are maintained in good working order and operated as efficiently as practical. The O&M manuals shall be updated as necessary and shall include the following, at a *minimum*: the most recent general descriptions of the equipment; manufacturer's recommended settings regarding secondary voltage, amperage and power for each T/R set of the ESP and the spark rate; the normal operating conditions and procedures for the boiler; startup, shutdown, and maintenance procedures; inspection procedures and inspection frequency; upset conditions guidelines; and corrective action procedures.

***Reporting Requirements***

**3.15 Compliance Test Protocol**

The permittee is strongly encouraged to submit a compliance test protocol for approval at least 30 days prior to conducting any compliance test required by this permit. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the test does not satisfy the testing requirements.

**3.16 Compliance Test Report**

The permittee shall submit a report of the results of any compliance test and the results of any fuel analysis required in by this permit, including all required process data, to DEQ within 30 days after the date on which any required compliance test is concluded, in accordance with IDAPA 58.01.01.157.

***NSPS General Provisions***

**3.17 NSPS General Provisions**

The permittee shall comply with the General Provisions under 40 CFR 60 Subpart A for the Boiler.

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<b>Location:</b>	Grangeville, Idaho			

**3.18 Address**

All requests, reports, applications, submittals, and other communications to the Administrator pursuant to 40 CFR 60 shall be submitted in duplicate to the appropriate Regional Office of the EPA, to the attention of the Director of the Division in accordance with 40 CFR 60.4, as given below. Copies of all information required to be submitted to the EPA for applicable NSPS requirements, shall also be submitted to DEQ at the address given in Section 2 of this permit.

EPA Region 10  
Director, Air and Waste Management Division  
1200 Sixth Ave.  
Seattle, WA 98101

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER P-050214**

<b>Permittee:</b>	Bennett Forest Industries	<b>Facility ID No.:</b> 049-00003	<b>Date Issued:</b>	July 10, 2006
<b>Location:</b>	Grangeville, Idaho			

**4. PRODUCTION EQUIPMENT**

**4.1 Process Description**

Bennett Forest Industries produces dimensional lumber products at the Grangeville facility. The processes include log handling, debarking, sawing, drying in kilns, planning, and material handling. Saleable products include dimensional lumber, wood chips, bark and rosebud horse bedding.

**4.2 Emission Control Description**

Particulate matter (PM) and hazardous air pollutant (HAP) emissions from the kilns are controlled by limitations on the amount of lumber that may be dried. Fugitive dust emissions from sources such as roads, saws, debarker, disc screen, conveyors and material transfer drop points are controlled per a Fugitive Dust Control Plan. PM emissions from five of the facility's material transfer system cyclones are uncontrolled and baghouses are used to control PM from the remaining two cyclones.

***Emission Limits***

**4.3 HAP Emission Limits**

The Bennett Forest Industries facility shall emit less than the following amounts of any hazardous air pollutant which has been listed pursuant to 42 U.S.C. Section 7412(b), as defined under IDAPA 58.01.01.008.10.a. For purposes of complying with this requirement, a year is defined as any consecutive 12-month period:

- 4.3.1 10 tons per year of methanol; and
- 4.3.2 25 tons per year of any combination of any hazardous air pollutants

**4.4 Formaldehyde Emission Limit**

The combined emissions of formaldehyde from all of the kilns shall not exceed 714 pounds per any consecutive 12-month period (lb/yr).

***Operating Requirements***

**4.5 Kiln Throughput Limit**

The total quantity of wood dried in the all of the kilns shall not exceed 250 million board feet per any consecutive 12-month period.

**4.6 Baghouses**

The permittee shall install, maintain and operate a Baghouse to control PM emissions from Cyclone 11 (sawmill sawdust) and a Baghouse to control emissions from cyclone 72 (planer shavings). Each Baghouse shall be operated at all times that the cyclone it is connected to is operating.

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4.6.1 When in operation, the pressure drop across each Baghouse shall be maintained within manufacturer's and Operation and Maintenance (O&M) Manual specifications. Documentation of the operating pressure drop specifications for each Baghouse shall remain onsite at all times and shall be made available to DEQ representatives upon request.

**4.7 Baghouse Monitoring Equipment**

Within 30 days of issuance of this permit, the permittee shall install, maintain, and operate, in accordance with manufacturer's specifications, equipment to measure the pressure differential across each Baghouse.

**Monitoring and Recordkeeping Requirements**

**4.8 Methanol Limit**

The total combined emissions of methanol from all of the lumber drying kilns (kilns) shall be calculated and recorded on a monthly basis, in units of tons per month and tons per consecutive 12-month period, to demonstrate compliance with Permit Condition 4.3.1. Methanol emissions from all of the kilns shall be calculated using the equation given below and the emission factors in Table 4.1, or DEQ-approved factors:

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

Where:

- Kiln HAP = Kiln Emissions of a specific HAP per month (ton/mo)
- n = Number of types of wood dried
- X<sub>i</sub> = Throughput, in mbf, of lumber of type i dried in all kilns per month (mbf/mo)
- Y<sub>i</sub> = Methanol emission factor for lumber of type i

**Table 4.1 HAP EMISSION FACTORS <sup>a</sup>**

Type of wood dried	Methanol <sup>b</sup> (lb/mbf)	Formaldehyde <sup>b</sup> (lb/mbf)	Acetaldehyde <sup>c</sup> (lb/mbf)	MEK <sup>c,d</sup> (lb/mbf)	Phenol <sup>e</sup> (lb/mbf)
Ponderosa	0.065	0.0029	0.0078	0.0013	0.004
White Fir	0.122	0.0028	0.0078	0.0013	0.004
Lodgepole	0.060	0.0040	0.0078	0.0013	0.004
Douglas Fir	0.023	0.0010	0.0078	0.0013	0.004

<sup>a</sup>Use the factors in this table, or DEQ-approved alternative factors in the kiln emissions equation  
<sup>b</sup>Factors from the Oregon State University Small-scale Kiln Study, Milota, September 29, 2000  
<sup>c</sup>NCASI factors as published in Table D-4 of the June 9, 2000 letter from K. Hanks, MRI, to M. Kissell, EPA  
<sup>d</sup>Methyl ethyl ketone (MEK); pounds per 1000 board feet (lb/mbf)  
<sup>e</sup>Olympic Region Clean Air Agency emission factor

**4.9 25 TPY HAP Limit**

The total combined emissions of all HAPs from all of the kilns and the Wellons Boiler shall be calculated and recorded on a monthly basis, in units of tons per month and tons per consecutive 12-month period, to demonstrate compliance with the 25 TPY aggregate HAP limit given in Permit Condition 4.3.

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- 4.9.1 The total HAP emissions from all of the kilns shall be determined by calculating the combined emissions of methanol, formaldehyde, acetaldehyde, methyl ethyl ketone (MEK), and phenol from all of the kilns using the equation specified in Permit Condition 4.8.
- 4.9.2 HAP emissions from the Boiler shall be calculated using the equation below.

$$BoilerHAP = \sum_{i=1}^n (X_i \times Y_i) (1 / 0.65) (995 \text{ Btu} / \text{lb} - \text{steam}) (\text{ton} / 2000 \text{ lbs})$$

Where:

- |                |   |   |
|----------------|---|---|
| Boiler HAP     | = | Boiler HAP emissions per month (ton/mo)                                     |
| n              | = | Number of different HAPs emitted by the Boiler                              |
| X <sub>i</sub> | = | Steam production in million pounds per month (MMlb-steam/mo)                |
| Y <sub>i</sub> | = | Emission factor for HAP "i" from AP-42 Section 1.6 or a DEQ-approved factor |

**4.10 Formaldehyde Monitoring**

The total combined emissions of formaldehyde from all of the kilns shall be calculated and recorded on a monthly basis, in units of pounds per month and pounds per consecutive 12-month period, to demonstrate compliance with the kiln emission limit in Permit Condition 4.4. The formaldehyde emissions shall be calculated using the equation given in Permit Condition 4.8.

**4.11 Kiln Throughput**

Each month, the permittee shall monitor and record the following kiln production information in units of board feet per month (bf/mo) and board feet per the most recent consecutive 12-month period (bf/yr):

- The quantity of each species of wood processed in all of the kilns; and
- The total sum of all wood species processed in all of the kilns.

**4.12 Baghouse Operations and Maintenance Manual Requirements**

An Operation and Maintenance manual shall be developed to address each of the two baghouses within 30 days of issuance of this permit. The permittee shall develop the O&M manual according to the manufacturer's specifications and recommendations for each baghouse. This manual shall describe the methods and procedures that will be followed to assure that each baghouse is maintained in good working order and operated as efficiently as practical. The O&M manual shall be updated as necessary and shall include, at a minimum, the most recent general descriptions of the equipment, the normal operating conditions, the manufacturer's recommended minimum and maximum pressure drops for each Baghouse, maintenance procedures, inspection procedures and inspection frequency, and upset condition guidelines.

**4.13 Baghouse Pressure Drop Monitoring**

When a Baghouse is operated, the permittee shall measure and record the following information on a weekly basis:

- The pressure drop across the Baghouse connected to Cyclone 11; and
- The pressure drop across the Baghouse connected to Cyclone 72.

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**5. PERMIT TO CONSTRUCT GENERAL PROVISIONS**

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.
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.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
  - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211.01 and 211.03:
  - A notification of the date of initiation of construction, within five working days after occurrence;
  - A notification of the date of completion/cessation of construction, within five working days after occurrence;
  - 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;
  - A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
  - A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date
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

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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.

7. 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.
8. In accordance with IDAPA 58.01.01.123, 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.