



Tier I Operating Permit

No. T1-050201

Project 60630

Final

Bennett Lumber Products, Inc.

EC

Princeton, Idaho

Facility ID No. 057-00008

January 13, 2011

Eric Clark

Permit Writer

The purpose of this Statement of Basis is to set forth the legal and factual basis for the Tier I operating permit terms and conditions including references to the applicable statutory or regulatory provisions for the terms and conditions as required by IDAPA 58.01.01.362

1. INTRODUCTION AND APPLICABILITY

IDAPA 58.01.01.362 requires that as part of its review of the Tier I application, DEQ shall prepare a technical memorandum (i.e. statement of basis) that sets forth the legal and factual basis for the Tier I operating permit terms and conditions including reference to the applicable statutory provisions or the denial. This document provides the basis for this administrative amendment for the Tier I operating permit for Bennett Lumber Products, Princeton.

2. APPLICATION SCOPE AND APPLICATION CHRONOLOGY

2.1 Application Scope

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. The description of the scrubber as a “venturi” has been removed. The description of the parametric monitoring for the scrubber pressure monitoring has been changed to refer to the ID fan outlet pressure (scrubber inlet pressure) rather than the pressure drop across the scrubber. 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.

2.2 Application Chronology

November 17, 2010	Bennett Lumber Products requested that some verbiage be updated to better reflect the actual events taking place at the plant. DEQ determined to administratively amend BLPs currently effective T1 operating permit in accordance with IDAPA 58.01.01.381 to correct the typographical as explained in Section 2.1 above. Also, NESHAP, Subpart ZZZZ requirements were determined necessary and included.
January 12, 2011	Draft of permit and Statement of Basis provided to Bennett for review.
January 17, 2011	Permit finalized

3. REGULATORY REVIEW

3.1 Administrative Amendment

This permit is for an administrative amendment in accordance with IDAPA 58.01.01.381 to enhance recordkeeping and reporting via a CAM plan. The CAM plan was previously included in the associated operating permit, but did not include specifics such as indicator ranges and monitoring intervals. Also, typographical errors and verbiage updates were added at the request of the permittee. The amendment date was added to the front page. No other changes have been made to the permit.

IDAPA 58.01.01.381.01.a was instituted to update the language as requested by the permittee. The updated language was added to better describe the processes and monitoring procedures used at the facility. Additionally, the description of the wet scrubber was modified from a venturi wet scrubber to a Multiclone in series with a wet scrubber with cyclone separator. This verbiage better describes that actual equipment and helps identify the section of the process where monitoring data is gathered. These description changes were suggested by the facility and accepted by DEQ following a discussion with

DEQ compliance staff.

The February 11, 2010, Tier I renewal incorporated CAM requirements. However, those conditions were put in with the understanding that a source test would be conducted to establish specific indicator ranges, performance criteria and reporting and recordkeeping requirements. A November 23, 2010 source test review letter was sent to Bennett by DEQ identifying that testing requirements have been satisfied and that two sampling runs under “worst case normal operations” will be used to establish CAM indicators. Compliance was demonstrated for both the high and low steaming rates for both the PM₁₀ and grain loading limits. Ranges of the scrubber flow rate and ID Fan outlet pressure drop were measured, the results of which can be found in Appendix A of this Statement of Basis. The recommended ranges submitted to DEQ by Bennett Lumber fall within the sampled values that demonstrated compliance. Therefore, the indicator ranges selected by Bennett Lumber are appropriate.

IDAPA 58.01.01.381.01.c allows for an administrative amendment when more frequent monitoring and reporting is required. The updates to the CAM plan in the Tier I Operating Permit requires monitoring and reporting occur when the previous permit only required a source test take place to establish said requirements. Therefore, the frequency is increasing. Additionally, IDAPA 58.01.01.381.01.f allows for any other change as part of the of the Part 70 program to be similar to those in Subsections 381.01.a through 381.01.d. It has been concluded by DEQ that any other updates to the CAM plan are considered similar to those stated in 381.01.c. Because the permittee requested the CAM plan to be incorporated into the Tier I permit, it was done administratively through IDAPA 58.01.01.381.02(a).

Finally, the addition of NESPAP, subpart ZZZZ requirements was necessary as the emergency engine onsite no longer qualifies for exemption or cannot be considered an Insignificant Activity as defined in IDAPA 58.01.01.317.01. No emission unit or activity subject to an applicable requirement shall qualify as an insignificant emission unit or activity. The engine is now subject to subpart ZZZZ and cannot be considered insignificant. Therefore, requirements were added to the associated PTC and incorporated in the Tier I permit administratively through IDAPA 58.01.01.381.02(b).

3.2 MACT Applicability (40 CFR 63)

40 CFR 63 Subpart ZZZZ..... NESHAPS for Stationary Reciprocating Internal Combustion Engines

§ 63.6585 *Am I subject to this subpart?*

You are subject to this Subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(c) An area source of HAP emissions is a source that is not a major source.

Bennett Lumber does operate a John Deere, model 6081AF001, 270 bhp emergency fire pump periodically throughout the year and it is used in emergency situations only. In addition, the facility is an area source for HAPs as they are below the major source thresholds of 10 T/yr for any one federally regulated HAP and 25 T/yr for all HAPs combined. This is assured by Permit Condition 2.1 within the associated permit.

§ 63.6590 *What parts of my plant does this subpart cover?*

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

The engine located at Bennett Lumber is considered existing as it was constructed in 1999.

§ 63.6595

When do I have to comply with the subpart?

(a)(1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

The applicable IC engine must be in compliance with the Subpart no later than May 3, 2013.

§ 63.6600 *What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?*

The applicable IC engine is not operating at a major source for HAP emissions. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6601 *What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than 500 brake HP located at a major source of HAP emissions?*

The applicable IC engine is not operating at a major source for HAP emissions and the engine is not a 4-stroke lean burn spark ignition. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6602 *What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?*

The applicable IC engine is not operating at a major source for HAP emissions. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6603 *What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?*

Compliance with the numerical emission limitations established in this Subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this Subpart.

(a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this Subpart and the operating limitations in Table 2b to this Subpart which apply to you.

Table 2b does not apply as it refers only to CI non-emergency engines greater than 500 bhp at area source facilities. Table 2d, however, identifies those limitations required by area sources to comply with the Subpart. The specifics of Table 2d require that the permittee perform regular maintenance on the applicable engine such as changing oil and filters every 500 operating hours, inspect air cleaner every 1,000 hours of operation and inspect all hoses and belts every 500 hours of operation. Each of the maintenance procedures shall occur at the indicated interval or annually, whichever occurs first.

§ 63.6604 *What fuel requirements must I meet if I own or operate an existing stationary CI RICE?*

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

Bennett operates an emergency engine; therefore this section does not apply to the facility.

§ 63.6605 What are my general requirements for complying with this Subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this Subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

When operating the applicable IC engine, they be operated in a manner that is consistent with reducing emissions and compliance with appropriate limitations applies at all times.

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

The engine located at Bennett is not required to perform any performance tests and the applicable IC engine is not operating at a major source for HAP emissions. No testing is required in accordance with Table 2d of the subpart.

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

The engine located at Bennett is not required to perform any performance tests and the applicable IC engine is not operating at a major source for HAP emissions. No testing is required in accordance with Table 2d of the subpart.

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

The engine located at Bennett is not required to perform any performance tests. No testing is required in accordance with Table 2d of the subpart.

§ 63.6615 When must I conduct subsequent performance tests?

The engine located at Bennett is not required to perform any performance tests. No testing is required in accordance with Table 2d of the subpart.

§ 63.6620 What performance tests and other procedures must I use?

The engine located at Bennett is not required to perform any performance tests. No testing is required in accordance with Table 2d of the subpart.

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(e) If you own or operate any of the following stationary RICE, you 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:

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

The applicable IC engine needs to be operated in accordance with manufacturer's specifications or a maintenance plan may be developed that is consistent with good air pollution control practices.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

A non-resettable meter shall be installed if not previously installed.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

Idle startup time may not exceed 30 minutes. Applicable emissions standards must be met following the allowable 30 minutes.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning 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 within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. 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.

This section allows Bennett to develop their own oil analysis program to modify the oil changing frequency if the program meets all criteria set forth in subsection i of the subpart.

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

The applicable IC engine is designated as emergency, and it does not have any emission or operating limitations. Rather, maintenance requirements are specified in Table 2d of this subpart. Therefore, this section is not applicable.

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

The applicable IC engine is designated as emergency, and it does not have any emission or operating limitations. Rather, maintenance requirements are specified in Table 2d of this subpart. As a result data capture is not necessary. Therefore, this section is not applicable.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

Section 9 of Table 6 of the subpart pertains to the emergency IC engine at Bennett. Requirement work practices are accounted for within Permit Condition 6.5 of the associated permit.

(f) Requirements for emergency stationary RICE. (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

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

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that 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. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

The above requirements pertain specifically to emergency engines. Permit Condition 6.9 accounts for these.

§ 63.6645 *What notifications must I submit and when?*

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

This section of the subpart is not applicable to the engine at Bennett because it is designated as emergency. 63.6645(a)(5) explicitly exempts emergency engines from this requirement.

§ 63.6650 *What reports must I submit and when?*

(a) You must submit each report in Table 7 of this subpart that applies to you.

All required reporting is specified in Table 7. However, Table 7 does not include any requirements for emergency engines. Therefore, this section of the subpart is not applicable to Bennett Lumber.

§ 63.6655 *What records must I keep?*

(e) You 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 stationary RICE;

(2) An existing stationary emergency RICE.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator 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 the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

Bennett needs to maintain records demonstrating that the engine is being operated in accordance an appropriate

maintenance plan. Records of operational hours from the non-resettable meter must also be kept. How many hours were spent in emergency situations and demand response. This requirements is established in condition 6.10.

§ 63.6660 *In what form and how long must I keep my records?*

(a) *Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).*

(b) *As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.*

(c) *You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).*

Permit Condition 6.10 also accounts for these requirements.

3.3 Permit Condition Review

There were several Operations & Manual permit conditions that were deemed obsolete after implementation of the CAM deal specifics. All of the requirements of the following conditions were included in the CAM plan and not needed as stand-alone conditions any longer.

3.6.1 The permittee shall maintain and follow O&M manual(s) for the multiclone and for the wet scrubber which describes the procedures that will be followed to comply with this permit and the manufacturer specifications for these air pollution control devices. At a minimum, the following items shall be included in the manual(s):

- A general description of the control device;
- Manufacturer's recommended values or values recommended in writing by combustion consultant and values from the most recent DEQ-approved CAM plan for each of the following parameters:
 - Pressure drop range across the multiclone in inches of water;
 - ID fan outlet (scrubber inlet) pressure in inches of water, and
 - Minimum scrubbing media flow rate in gallons per minute,
- Normal operating procedures;
- Methods of identifying and preventing malfunctions;
- Appropriate corrective actions to be taken in the case of upsets and malfunctions;
- Provisions for at least weekly inspections and routine maintenance schedules, including inspection frequency and evaluation criteria for the quality and flow rate for the wet scrubber scrubbing media; and
- Relevant information about efficient concurrent operation of the multiclone unit and the wet scrubber.

3.6.2 In accordance with 40 CFR 64.3(b)(2), the owner or operator shall consider the monitoring equipment manufacturer's requirements or recommendations for installation, calibration, and start-up operation.

3.6.3 A copy of the manufacturer's or combustion consultant's recommendations shall be included with the O&M manual and both shall be made available to DEQ representatives upon request.

- 3.6.4 Upon receiving DEQ written approval of the source test and the requested alternative operating parameters, the permittee shall update the O&M manual to specify the appropriate range(s) or designated condition(s) for the multiclone and the scrubber and the scrubbing media flow rate established by the performance test, and may then operate in accordance with those DEQ-approved alternative operating parameters. A copy of DEQ's approval shall be maintained on site with a copy of this permit.
- 3.6.5 The O&M manual(s) shall be updated within 30 days of receipt by the facility of the most recent compliance testing report, and shall contain a certification by a responsible official. The O&M manual(s) shall be updated as needed as additional information is gained in day-to-day operating experience.
- 3.6.6 The operation and monitoring requirements specified in the O&M manual are incorporated by reference to this permit and are enforceable permit conditions.
- 3.11 **Monitor Scrubber Flow Rate**
The permittee shall monitor and record the scrubber flow rate once daily.

4. PUBLIC COMMENT

Public notice is not required for this administrative amendment in accordance with IDAPA 58.01.01 381.c.

5. EPA REVIEW OF PROPOSED PERMIT

EPA review is not required for this administrative amendment in accordance with IDAPA 58.01.01.381.c. A copy of the revised permit is being submitted to EPA.

APPENDIX A – CAM INFORMATION



November 23, 2010

Mr. Jeff Abbott
Bennett Lumber Products
P.O. Box 130
Princeton, ID 83857

Re: Review of the Hogged Fuel Fired Boiler PM, PM₁₀, and CO performance tests conducted by Bennett Lumber Products, Princeton, on July 28 and August 5, 2010; Facility ID No. 057-00008

Dear Mr. Abbott:

On September 16, 2010, the Department of Environmental Quality (DEQ) received an EPA Methods 1-5, 9, 10, and 202 performance test report, for the Zurn Industries hogged fuel fired boiler operated by Bennett Lumber Products, in Princeton, ID. Carbon monoxide (CO) testing was conducted on July 28, 2010 and particulate matter (PM and PM₁₀) testing was conducted on August 5, 2010, by Bison Engineering. Testing was conducted to satisfy the emission testing requirements of Tier I Operating Permit No. T1-050201, issued February 11, 2010, (amended on August 2, 2010) and Permit to Construct (PTC) No. P-2007.0107 issued on January 13, 2005, (amended on August 2, 2010). A test protocol was submitted on May 27, 2010. This protocol was conditionally approved on June 17, 2010. An amended protocol was submitted on July 7, 2010. The amended protocol was conditionally approved on July 9, 2010. DEQ staff was present during testing.

Testing was conducted to demonstrate compliance with the PM, PM₁₀, and CO emission limits, and to establish emission factors for PM₁₀ and CO to be used to demonstrate continuous compliance with the emission limits contained in Tier I Operating Permit No. T1-050201 and PTC No. P-2007.0107. Based on a review of the submitted test report, DEQ has determined that the Methods 5/202 and 10 performance tests on the hogged fuel boiler demonstrated compliance with the emission limits. The PM, PM₁₀, and CO measured emissions and emissions limits are shown in Table 1.

Table 1. Hogged fuel boiler Measured Emissions and Emissions Limits

Pollutant	Measured Emissions	Emissions Limit
PM ^a	0.108 gr/dscf 8% O ₂	0.200 gr/dscf 8% O ₂
PM ₁₀ ^b	19.4 lb/hr PM ₁₀	27 lb/hr PM ₁₀
CO	213 T/yr	249 T/yr

^a Reported PM emissions are the results of EPA Method 5 only.

^b Reported PM₁₀ emissions are the sum of EPA Methods 5 and 202.

The submitted test report satisfies the testing and reporting requirements contained in Tier I Operating Permit No. T1-050201 and PTC No. P-2007.0107. The boiler is rated for a maximum steam production rate of 60,000 lb/hr. Table 2 shows the average operational parameters during the tests.

Table 2. Hogged fuel boiler production data and control equipment parameters.

Pollutant	Steam Production, lb/hr	Scrubber Flow Rate, gpm	ID Fan Outlet Pressure, in. w.c.
PM ₁₀	45,508	N/A	N/A
CO	45,559	N/A	N/A
PM ₁₀	N/A	367	5.0"
CO	N/A	340	5.0"

Tier I Operating Permit No. T1-050201 and PTC No. P-2007.0107 require that the permittee calculate annual PM₁₀ and CO emissions from the boiler by multiplying the total monthly steam produced by an emission factor, in pounds of pollutant per pound of steam produced, derived from the most recent Department-approved source test. The Department approved emission factors from this source test are:

CO - 0.0011 lbs of CO/lb steam produced
PM₁₀ - 0.0004 lbs PM₁₀/lb steam produced

The filterable particulate emission rate measured in this test is 0.108 grains/dscf corrected to 8% O₂. This is 54% of the emission limit of 0.200 grains/dscf at 8% O₂. The PM₁₀ emission rate measured in this test 19.4 lb/hr. This is 72% of the emission limit of 27 lb/hr. Therefore, in accordance with the requirements of Tier I Operating Permit No. T1-050201 and PTC No. P-2007.0107, the next required test to demonstrate compliance with this emission standard shall be conducted within five years of the test date, or by August 5th, 2015.

The measured CO emission rate measured in this test was 213 T/yr which equates to an hourly emission rate of 48.6 lb/hr. Tier I Operating Permit No. T1-050201 and PTC No. P-2007.0107 states that if the measured emission rate of CO is greater than 43 lb/hr, the next required test to demonstrate compliance with this emission standard shall be conducted within five years of the test date, or by August 5th, 2015.

On August 5, 2010, two Method 5/202 sampling runs were performed at a steam production rate lower than what was determined to be "worst case normal operations". This information will be used to establish a range of operation for the wet scrubber to comply with the Compliance Assurance Monitoring (CAM) requirements of 40 CFR 64. The results of the two CAM sampling runs are listed in Table 3.

Table 3. CAM PM₁₀ emissions, production data and control equipment parameters.

Run	PM ₁₀ Emission Rate, lb/hr	Steam Production, lb/hr	Scrubber Flow Rate, gpm	ID Fan Outlet Pressure, in. w.c.
1	11.6	17,709	360	4.0
2	14.8	17,878	357	3.5

Mr. Jeff Abbott
November 23, 2010
Page 3 of 3

If you have any questions about regarding this performance test review, please call Tom Anderson at (208) 373-0312, or me at (208) 799-4370.

Sincerely,

Amber Rand
Air Quality Analyst

ec: Tom Anderson, Technical Services Division
Marilyn Seymore, Air Quality Division

BLP CAM parameter range derivations

	Measured 8/4/10	2006 SEI combustion consultant recommendations	2010 CAM Plan recommendations
High steam	45462 lbs/hr	>500	>350
Low Steam	17734 lbs/hr	1 to 3	0.8 to 3
PM10 as % of allowable	70.7%		
Grain Loading as % of Allowable	35.5%		

Scrubber Media Flow Rate (gall/min) 360 - 369 357 - 360

Multiclone Pressure drop (in H2O) 1.5 - 1.7 1.3 - 1.4

ID Fan Outer Pressure Drop (in H2O),

for scrubber pressure drop

Steaming Range 4.9 - 5.0 3.5 - 4.0

not in Tier I permit, recommended as not needed for CAM by Tom Anderson

calculations in Tier I permit section 3.4 for permit compliance run confirm steaming limit is equipment capacity of 60000 lbs/h