Washington State Department of Ecology
Eastern Region Office
4601 North Monroe
Spokane, Washington 99205-1295

Statement of Basis for
Air Operating Permit Number DRAFT
Boise Cascade Wood Products, LLC
Kettle Falls Plywood
Kettle Falls Washington

Table of Contents

List of Abbreviations

AOP	Air Operating Permit
BACT	Best Available Control Technology
BTU	British Thermal Units
°C	Degrees Celsius
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
dscf	Dry Standard Cubic Foot
dscf/m	Dry Standard Cubic Foot per minute
Ecology	Washington State Department of Ecology
E.I.T.	Engineer in Training
EPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit
FCAA	Federal Clean Air Act
ft^3	Cubic foot
gr/dscf	Grains per dry standard cubic foot
hr	Hour
lb	Pound
MMBtu	Million British Thermal Units
MRRR	Monitoring, Recordkeeping, and Reporting Requirement
NOC	Notice of Construction
NO_x	Oxides of Nitrogen
NSPS	New Source Performance Standard
O_2	Oxygen

O&M	Operation & Maintenance
P.E.	Professional Engineer
PM	Particulate Matter
PM-10	Particulate Matter with aerodynamic diameter ≤ 10 micrometers
ppm	Parts per million
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
RM	EPA Reference Method from 40 CFR Part 60, Appendix A
scfm	Standard Cubic Feet per Minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
T	Temperature
TAP	Toxic Air Pollutant
TPD	Tons Per Day
TPY	Tons Per Year
TSP	Total Suspended Particulate
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
w%	Percentage by Weight
yr	Year

1.0 Introduction

This statement of basis summarizes the legal and factual basis for the air operating permit issued by the Washington State Department of Ecology. Unlike the air operating permit, this document is not legally enforceable. This statement of basis summarizes the emitting processes, air emissions, permitting and compliance history, the statutory or regulatory provisions that relate to the facility, and the steps taken to provide opportunities for public review of the permit. The permittee is obligated to

follow the terms of the permit. Any errors or omissions in the summaries provided here do not excuse the permittee from the requirements of the permit.

2.0 Permit Authority

Title V of the Federal Clean Air Act Amendments required all states to develop a renewable operating permit program for industrial and commercial sources of air pollution. The Washington State Clean Air Act (Chapter 70A.15 Revised Code of Washington (RCW)) was amended in 1991 and 1993 to provide the Department of Ecology and Local Air Agencies with the necessary authority to implement a state-wide air operating permit program. The law requires all sources emitting one hundred tons or more per year of a criteria pollutant, ten tons of an individual hazardous air pollutant, or twenty-five tons cumulative hazardous air pollutants, to obtain an operating permit. Criteria pollutants include sulfur dioxide, nitrogen dioxide, particulate matter, carbon monoxide, ozone, and lead.

Chapter 173-401 of the Washington Administrative Code (WAC), which specifies the requirements of Washington State's Operating Permit program became effective November 4, 1993. The United States Environmental Protection Agency (EPA) granted Washington's program interim approval on December 9, 1994. Final approval of Washington's program was granted on August 13, 2001. The current version of the regulation was filed on August 16, 2018.

3.0 Facility Information

3.1	Company Name	Boise Cascade Wood Products, LLC
3.2	Facility Name	Kettle Falls Plywood Facility
3.3	Unified Business Identification Number	WA602-429-647
3.4	Facility Address	1274 S. Boise Rd., Kettle Falls WA, 99141
3.5	Responsible Official	Christina Dayton, Inland Region Environmental Engineer
3.6	Mailing Address	1274 S. Boise Rd., Kettle Falls WA, 99141
3.7	Facility Contact	Christina Dayton, Inland Region Environmental Engineer
3.8	Facility Contact Phone Number	(509) 738-3219

4.0 Basis for Title V Applicability

WAC 173-401-200(19)(a) identifies any source that directly emits or has the potential to emit 10 tons per year (tpy) or more of any Hazardous Air Pollutant (HAP) which has been listed pursuant to section 112(b) of the FCAA, or 25 tpy or more of any combination of such hazardous air pollutants as a major source. WAC 173-401-200(19)(b) identifies any source that directly emits or has the potential to emit

one hundred tpy or more of any regulated air pollutant as a major source. Major sources are required to obtain Title V permits under WAC 173-401-300(1)(a)(i).

Boise Cascade Wood Products, LLC (Boise), Kettle Falls Plywood emits or has the potential to emit carbon monoxide (CO) and oxides of nitrogen (NO_X) in excess of 100 tons per year, and methanol (a HAP) in excess of 10 tons per year.

5.0 Attainment Classification

The facility is located in an area that is classified as in attainment for all criteria pollutants as of January 2024.

6.0 Facility Description

The facility consists of a plywood plant, a hogged fuel boiler, a fluidized bed combustor, maintenance shops, and miscellaneous sources. The various facility components are discussed below:

6.1 *Plywood Plant* – Logs are delivered to the infeed of the plywood debarker using a loader. The plywood debarker has a hydraulic log handler that loads the logs onto a mechanical conveyor then strips off the bark. The bark drops to a conveyor leading to the plywood hog, which grinds up the bark before it is pneumatically conveyed to a three-way switch that can send the hogged fuel to either the boiler fuel silo via Cyclone 6, the fuel surge bin via Cyclone 11, or truck bins. The debarked logs continue along the conveyor. Saw blades lower and cut the log into blocks (the number depending on the length of the log). The waste ends of the log, commonly referred to as lily pads, and the sawdust from the cutoff saws are then sent to the lily pad chipper. The chips generated are pneumatically conveyed to Cyclone 4 atop the plywood plant chip surge bin. The chips then pass over a screen, removing the fines which are sent to Cyclone 1. The screened chips are pneumatically conveyed to either a chip truck bin or rail car loadout. There is also an option to send plywood chips to the hog fuel truck bins.

The blocks are mechanically tipped into block bins where they are transferred to storage or conditioning vats (log vats). The log vats use hot water to raise the core temperature of the log to a desired temperature. The heated blocks are then transferred to the infeed of the plywood plant where each block is mechanically loaded onto the lathe. The lathe uses a knife to peel a continuous piece of veneer of pre-selected thickness (generally 1/8 inch) from the log leaving the core. The veneer is then conveyed to a clipper that optically reads its quality and clips the veneer into sections, removing imperfections and damaged pieces. The clipped veneer is sorted and stacked using vacuum handlers and fed to the veneer dryers. The cores are sent to the core chipper and the clipped veneer scrap is sent to the veneer chipper. The chips are then sent to the plywood plant surge bin and combined with the lily pad chips, screened, and conveyed to either a truck bin or rail car loadout.

There are three veneer dryers at the plywood plant. The dryers are heated by exhaust from a fluidized bed combustor (FBC) rated at 72 MMBtu/hr.

Fuel for the FBC is primarily bark from the debarking processes at the plywood and lumber facilities. The fuel is stored in FBC fuel silos or the hogged fuel storage pile.

Dried veneer is sent to either the end trim saw to be cut into eight-foot lengths or to the core saw to be cut in four-foot lengths. The trimmed pieces of dry veneer and sawdust are collected by Cyclone 1 and subsequently routed through Baghouse 2.

After trimming, the veneer is fed through the lay-up line where the veneer is combined with adhesive using vacuum handlers with suction through Cyclone 2. At the lay-up line, an adhesive is applied to one side of a sheet of veneer, then another sheet is laid on top of it followed by more adhesive and an additional sheet, until a desired number of sheets are adhered together forming a sheet of plywood. (The number of sheets used in a piece of plywood is commonly referred to as the ply of the plywood. Thus, 4-ply plywood would be 4 sheets of veneer.) The plywood is then trimmed as necessary with the flying saw and sent to a plywood press where the plywood is compressed between hot plates to cause the adhesive to harden, and to strengthen the bond between the veneer sheets and adhesive.

There are currently two presses: a 44 opening and a 24 opening. Plywood is removed from the presses and sent to the panel saws where it is sawed to specification length and width. The plytrim waste generated by the flying saw and any wood scraps from the lay-up line are routed through the small dry hog to Cyclone 15 and subsequently, Baghouse 1. The panel saw trimmings and sawdust are also routed through the large dry hog to Cyclone 15 and subsequently, Baghouse 1. A stand-alone tongue and grove machine and its associated sander are controlled by Cyclone 1 and subsequently, Baghouse 2. The Cyclone 1 catch is combined with the catch from Cyclones 2 and 15, and then transferred to either the boiler hogged fuel silo (via Cyclones 6 and 7), or to truck bins (via Cyclones 12 or 13). The plywood is then graded, banded, and stenciled before being transferred to temporary storage or shipped offsite by truck or rail.

6.2 *Hogged Fuel Boiler* – The boiler provides steam to the plywood presses, block conditioning vats, and unit heaters. The primary fuel is ply trim. Fuel is fed to the boiler by conveyor from the boiler fuel silo. The emissions from the boiler are controlled by fly ash re-injection, a multiclone, and an Electrified Filter Bed (EFB). The boiler ash is conveyed to a small storage area located east of the boiler building. This storage area is controlled by Cyclone C-14.

The hogged fuel boiler has been non-operational since January 31, 2017, until adequate emission control technologies are installed to achieve final compliance with Subpart DDDDD emission limits.

6.3 *Fluidized Bed Combustor* – Exhaust from the fluidized bed combustor (FBC) provides direct heat to the three veneer dryers.

6.4 *Maintenance* – Maintenance activities at the Kettle Falls Plywood Facility include an automotive maintenance shop including a gasoline and diesel dispensing tank and facility maintenance - grounds keeping, carpentry, painting, etc.

6.5 *Miscellaneous* – Miscellaneous sources at the facility encompass a range of units (i.e., a log yard, facility roads, and process water pond) and activities (i.e., fuel storage and lumber and plywood storage and shipping).

7.0 Facility Emission Units/Processes

7.1 Facility wide (Section 2.1 in AOP) - The following significant emission units are not subject to specific requirements (Notice of Construction Approval Orders, NSPS standards, etc.), but are subject to the facility-wide requirements in Table 2.1 of the AOP.

7.1.1 Cyclone C-4 – Lilly Pad Chipper

7.1.2 Cyclones C-6 and C-7 – Boiler Hogged Fuel Silo

7.1.3 Cyclones C-11 – Clarke Surge Bin

7.1.4 Cyclone C-12 and C-13 – Plytrim/Sawdust Truck Bins

7.1.5 Cyclone C-14 – Boiler Ash Storage Pile

7.1.6 Building vents – The focus in terms of monitoring shall be on vents located above or near to the veneer dryers and plywood presses.

7.1.7 Plywood Press area building vent.

7.1.8 Veneer dryer No. 1. Two Coe veneer dryers constructed in 1967. Veneer dryer history and identification is discussed in section 19.1 of this SOB.

7.2 The following significant emission units are subject to Notice of Construction Approval Orders as well as the facility-wide requirements in Section 2.1 of the AOP:

7.2.1 Cyclone C-2 (Section 2.2 in AOP)

Rated at 40,585 acfm and constructed under Order No. DE94AQ-114. Pickup from the dry veneer layup line and stacker is routed through cyclone C-2. The catch from C-2 is combined with the catch from cyclones C-1 and C-15 and routed to cyclone C-7.

7.2.2 Baghouse BH-1 (Section 2.2 in AOP)

Installed in 1994 under Order No. DE94AQ-E111. The baghouse contains 216 bags with a filter area of 6,758 square feet and has a flow rate of 36,000 acfm. Processes exhaust from Cyclone C-15. The cyclone collects flying saw sawdust, small and large hog plytrim and chip screening fines. The catch from C-15 and Baghouse #1 is routed to truck bins or to the boiler hogged fuel silo.

7.2.3 Baghouse BH-2 (Section 2.2 in AOP)

Installed in 1999 under Order No. DE99AQ-E103. The baghouse contains 216 bags with a filter area of 6,758 square feet and has a flow rate of 36,000 acfm. Processes exhaust from cyclone C-1. The cyclone collects sawdust and debris from the end trim and core saws, plywood panel tongue and groove machine, and the sander. The catch from C-1 and BH-2 is routed to truck bins or to the boiler hogged fuel silo.

7.2.4 Veneer Dryers No. 2 and No. 3 (Section 2.3 in AOP)

Dryer No. 2 is a 16-section, 6-deck Coe dryer installed under Order No. 01AQER-1920. This dryer was a replacement for the Prentice dryer installed in 1979.

Dryer No. 3 is a 10-section, 6-deck dryer installed under Order No. DE92AQ-E152.

The veneer dryers are heated directly by exhaust from the fluid bed combustor. Moist return air from dryers has historically been returned to the fluid bed combustor, with emissions controlled by a wet scrubber. Boise determined the scrubber would not meet the requirements of 40 CFR 63, subpart DDDD (the “plywood MACT” or “Panel MACT”). The scrubber has been replaced by a combination RTCO/ESP permitted under Order No. 07AQ-E243. Compliance options and operating requirements were included in that order. The remaining veneer dryer work practices, general monitoring requirement and throughput limits are consolidated in a single approval Order No. 09AQ-E283.

7.25. Fluidized Bed Combustor (Section 2.4 in AOP)

Two fluidized bed combustors and a veneer dryer were constructed in 1979 under Order No. DE 79-471 and PSD permit No. PSD X-80-01 (issued by EPA Region 10).

The original veneer dryer has since been replaced and the smaller fluid bed combustor ("FBC 160”) has been removed. The FBC 200 burns hogged fuel and has been de-rated from its original 100 MM Btu/hour capacity. During the March 5, 2009 stack test the average output was 58 MM Btu/hour. Estimated fuel use is 7.3 tons/hour.

Exhaust from the FBC provides direct heat to the three veneer dryers[1].

Moist air returning from the veneer dryers follows three paths:

1) Approximately 50 percent is routed to a blend chamber where it is mixed with FBC exhaust, routed through a multiclone to remove particulate matter and on to the veneer dryers.

2) Approximately 25percent to the FBC as over-fire and fluidizing air.

3) Approximately 25percent direct to the ESP/RTCO.

[1] Attachment 2

Hot air from the FBC may be routed directly to the ESP during startup and shutdown to minimize condensation.

Particulate emissions from the system are controlled by an ESP. The ESP is followed by an 8 MM Btu/hour RTCO for control of VOC and organic HAP. The RTCO is currently operated in thermal mode, and there are no plans for catalytic operation.

7.2.6 Hogged Fuel Boiler and Electrified Filter Bed (Section 2.5 in AOP)

The boiler was installed in 1975 and rated at 60,000 lb. steam/hour. The boiler had a Riley spreader-stoker furnace and used a multiclone for particulate control. No NOC order was issued.

The boiler was unable to meet emission standards for particulate matter, and Order No. DE 91 AQ-E123 required installation of an electrified filter bed (EFB) downstream of the multiclone for improved particulate control, and de-rating the boiler. The Riley boiler burns mostly ply-trim, along with some bark and provides steam to the plywood presses, log conditioning vats and heaters. The steaming rate is limited to less than 40,000 lb./hour from May through September and 45,000 lb./hour from October through April.

The hogged fuel boiler has been non-operational since January 31, 2017, until adequate emission control technologies are installed to achieve final compliance with Subpart DDDDD emission limits.

7.2.7 Cleaver Brooks CBEX Elite Natural Gas (NG) Boilers (Section 2.6 in AOP)

Two 27.64 MMBtu/hr natural gas boilers (NGB1 & NGB2) were installed and operational at the facility on December 1, 2016, and December 2, 2016, respectively (under Order No. 15AQ-E631).

8.0 Title V Facility Timeline

8.1 August 26, 1997---- ---------- Original Title V AOP issued (Order No. DE 97AQ-E136)

8.2 August 26 2002 ---------- AOP Order No.DE 97AQ-E136 Expired

8.3 April 25, 2005 ---------- AOP Order No. 03AQER-5613, 2nd Revision Issued

8.4 July 1, 2008 ---------- AOP Order No. 03AQER-5613, 2nd Revision Expired

8.5 March 29, 2011 ---------- AOP Order No. 08AQ-E252, 2nd Amendment Issued

8.6 January 11, 2015 ---------- AOP Order No. 08AQ-E252, 2nd Amendment Expired

8.7 January 27, 2020 ---------- AOP Order No. 20AQ-E001 Issued

8.8 January 31, 2025 ---------- AOP Order No. 20AQ-E001 Expires

8.9 DATE, 2024 ---------- AOP Order No. XXXX-XXXX Issued

9.0 Changes to Underlying Ecology New Source Review Orders of Approval

Since the last AOP renewal (January 27, 2020), the following VBL NOC Approval Order has been modified:

On December 12, 2023, **Order No. 23AQ-E053** superseded and rescinded Orders No. 09AQ-E243 and 07AQ-E243, 2nd Amendment. The new amended order covers VOC and CO emissions from the cooling process of the Veneer Dryers and consolidates the 09AQ-E243 and 07AQ-E243, 2nd Amendment Orders into this single order.

10.0 Changes to Underlying State Requirements

Since the last AOP renewal, Chapter 173-400, -441, -455 and -460 WAC have been adopted or amended. Regulatory citations used throughout the permit were updated to reflect the effective date of these modified regulations. Below is a summary of the regulatory citations that were modified and their effective dates.

Regulatory Citation	Name of Chapter or Section	State	Federal (SIP)
WAC 173-400-040	General standards for maximum emissions	09/16/18	02/24/20
WAC 173-400-050	Emission standards for combustion and incineration units	01/19/23	02/24/20
WAC 173-400-060	Emission standards for general process units	11/25/18	02/24/20
WAC 173-400-070	Emission Standards for Certain Source Categories	01/19/23	12/28/23
WAC 173-400-105	Records, monitoring, and reporting	11/25/18	02/24/20
WAC 173-400-171	Public notice and opportunity for public comment	09/16/18	12/28/23
WAC 173-441	Reporting of emissions of greenhouse gases	03/12/22	-
WAC 173-455	Air Quality Fee Rule	7/1/23	-
WAC 173-460	Controls for new sources of toxic air pollutant	11/22/19	-

11.0 Federal Regulation Applicability Discussion

11.1 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The following subparts to 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories) were promulgated or revised within the term of the current AOP have not been previously addressed or are included here for clarification of non-applicability purposes.

11.1.1 40 CFR 63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants; Plywood and Composite Wood Products (PCWPMACT)

This Subpart applies to Boise because the facility manufactures plywood and is a major source of HAP emissions. ***Therefore, this regulation is applicable to Boise.***

11.1.2 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

This Subpart applies to Boise's hog fuel boiler because the facility is a major source of HAPs. However, the hogged fuel boiler has been non-operational since January 31, 2017, until adequate emission control technologies are installed to achieve final compliance with Subpart DDDDD emission limits. ***Therefore, this regulation is not currently applicable to Boise.***

11.2 New Source Performance Standards (NSPS)

Applicant's facility does not contain specified sources; ***therefore, no NSPS is applicable to Boise***.

12.0 Compliance Assurance Monitoring Applicability Analysis

A CAM Plan is required for each federally enforceable applicable standard for each emission unit that meets the following criteria:

12.1 The unit is located at a major source for which a Part 70 or 71 permit is required. [40 CFR 4.2(a)].

12.2 The unit is subject to an emission limitation or standard for an applicable regulated air pollutant. [40 CFR 64.2(a)(1)].

12.3 The unit uses a control device to achieve compliance with the emission standard. [40 CFR 64.2(a)(2)].

12.4 The unit has potential pre-control emissions of at least 100 percent of the major source amount (normally 100 tons per year). [40 CFR 64.2(a)(3)].

12.5 The applicable emission limitation/standard is not otherwise exempt by a rule included in 40 CFR 64.2(b), (e.g. Acid Rain Program requirements, Stratospheric ozone protection requirements, a continuous compliance determination specified as part of a part 70 or 71 permit, and others). [40 CFR 64.2(b)((1)(i-vi)]

The hog fuel boiler does not use control devices to achieve compliance with the emission standards for NOx, CO, SO_2, VOC and mercury emissions; therefore, Compliance Assurance Monitoring is not applicable to this unit for these pollutants, per criteria 3.

The FBC does not use control devices to achieve compliance with the emission standards for NOx, CO, SO_2 and mercury emissions; therefore, Compliance Assurance Monitoring is not applicable to this unit for these pollutants, per Criteria 3.

13.0 Applicable/Inapplicable Requirements Determinations/Explanations

13.1 Initial or one-time NOC requirements that have been met and are not included in the AOP as ongoing applicable requirements:

13.1.1 Order No. DE 99AQ-E103, Issued 01/19/99, Approval Condition 5.2: Complete O&M manual.

13.1.2 Order No. DE 99AQ-E103, Issued 01/19/99, Approval Condition 5.1: written notification of baghouse startup.

13.1.3 Order No. DE 99AQ-E103, Issued 01/19/99, Approval Condition 9.2: commence baghouse construction within 18 months.

13.1.4 Order No. DE 79-421, Issued 09/18/79, Approval Condition 1: Initial source testing.

13.1.5 PSD-X80-01 First Amendment, Issued 02/14/03, Approval Condition 4: construction not discontinued for 18 months.

13.1.6 Order No. DE 78-459, Issued 10/24/78: Compliance schedule.

13.1.7 Order No. DE 91AQ-E123, 1st Amendment, Issued 2/2/2009, Approval Condition 9: prepare solid waste disposal plan.

13.1.8 Order No. DE 91AQ-E123, 1st Amendment, Issued 2/2/2009, Approval Condition 1(b): Installation of COMS.

13.1.9 Order No. DE 91AQ-E123, 1st Amendment, Issued 2/2/2009, Approval Condition 1(c): collect data during initial source test.

13.1.10 Order No. DE 91AQ-E123, 1st Amendment, Issued 2/2/2009, Approval Condition 2: Source test within 180 days.

13.1.11 Order No. DE 91AQ-E123, 1st Amendment, Issued 2/2/2009, Approval Condition 4: Complete O&M manual.

13.1.12 Order No. DE 91AQ-E123, 1st Amendment, Issued 2/2/2009, Approval Condition 7, Install exhaust gas O2 monitor.

13.1.13 Order No. 07AQ-E243, 1st Amendment, Issued XX/XX/2009, Approval Condition 2.1, Conduct initial performance test before 3/30/2009.

13.1.14 Order No.DE79-471, Issued 9/18/1979, Condition 1, Conduct a performance test within 90 days of "the boiler" becoming operational. There is no other reference to a boiler in the Order and no record of any boiler source test. A letter from the permittee to Ecology dated 4/22/1980 refers to an "understanding" that no hog fuel boiler stack test would be required if the permittee took certain actions. The letter goes on to list 5 actions that have been taken. There is no reference in subsequent correspondence to any requirement for a hog fuel boiler stack test.

13.1.15 Order 15AQ-E631, Approval Conditions 3.7.1., and 3.7.2. Natural Gas Boiler construction and start-up date notifications.

14.0 Monitoring, Recordkeeping, and Reporting Requirements (MRRR)

This section provides brief discussions regarding the reasoning behind the MRRR's included as part of the AOP. The criterion is that each MRRR must be sufficient to assure compliance with the associated condition, emission standard or work practice.

Gap filling: if an applicable requirement does not include monitoring, recordkeeping and reporting requirements sufficient to assure compliance, the AOP will establish additional requirements. This action is known as gap filling. Monitoring, Recordkeeping and Reporting Requirements that include gap filling are identified by a note following the MRRR description.

No additional MRRR Required

No specific monitoring can reasonably be required for these conditions. The permittee is required to certify compliance with these conditions annually. Determination of compliance may be based on a reasonable and good faith effort to identify any deviations during the reporting period.

1M – Complaint Response

This MRRR was designed to ensure that complaints from the public are recognized, investigated, and any appropriate corrective action taken. Recordkeeping provides documentation of all complaints and the facility response to each.

2M –Visible Emissions Surveys for Sources with Opacity Standards

This MRRR is applied to emission units that are subject to an opacity standard but are not equipped with continuous opacity monitoring systems (COMS). A monthly visible emission observation is considered to be sufficient monitoring for the emission units at the source. The monitoring provides periodic evaluation of each emission point, while requiring visible emission testing using EPA Method 9 or Department of Ecology Method 9A only when excess visible emissions are observed and cannot be eliminated quickly.

3M – Annual Review of Documents

The monitoring has been designed to require periodic reviews of Operation and Maintenance manuals and other documents in order to evaluate whether current operational practices are being conducted in a manner consistent with the information upon which permitting has been based. The recordkeeping and reporting required ensure that practices, which are not consistent with the submitted information, will be addressed in a timely manner.

4M – Visible Emissions Walk-Around

Periodic walk-around surveys are a simple and direct method of detecting the presence of visible emissions. The use of visible emission surveys as monitoring for particulate matter standards is appropriate for general process units, which are not large enough to justify performance testing by EPA reference methods 5 and/or 202. An increase in visible emissions is also a general indication that good air pollution control practices are not being used. Ecology believes that a visible emissions/no visible emissions evaluation is acceptable monitoring for particulate emissions because visible emissions should appear before there is a compliance problem.

5M – Fuel Type

WAC 1730-400-040 (6) limits SO2 emissions from combustion sources to 1,000 ppm, corrected to 7 percent oxygen.

Initial stack testing of the FBC stack measured an SO_2 content of 0.9 ppm. SO2 emissions are a function of fuel sulfur content, and the FBC exhaust cannot exceed 1,000 ppm while combusting wood waste.

SO_2 emissions are a function of fuel sulfur content. Based on stoichiometric analysis, the exhaust from the Riley boiler will not exceed 1,000 ppm while burning wood waste.

6M – Cyclone C-2 and Baghouse BH-1 & BH-2 Monitoring

Incorporates specific monitoring, recordkeeping and reporting requirements from Notice of Construction Approval Orders.

7M – Cyclone C-2 and Baghouse BH-1 & BH-2 O&M Manuals

Includes specific requirements for the contents of O&M Manuals. Requires periodic reviews of O&M Manuals to ensure that any changes in equipment or operating procedures are incorporated.

8M – Veneer Dryers No. 2 and No. 3 Recordkeeping

Includes recordkeeping requirements from Notice of Construction Approval Orders.

9M – Veneer Dryers No. 2 and No. 3 O&M Manuals

Includes specific requirements for the contents of O&M Manuals. Requires periodic reviews of O&M Manuals to ensure that any changes in equipment or operating procedures are incorporated.

10M – RTCO & ESP O&M Manual

Includes specific requirements for the contents of O&M Manual. Requires periodic reviews of O&M Manual to ensure that any changes in equipment or operating procedures are incorporated.

11M – RTCO & ESP Testing, Monitoring and Recordkeeping

Includes source testing and parameter monitoring from Order No. 07AQ-E243, 1st amendment. Cross references specific MACT monitoring and recordkeeping requirements from MRRR 21M.

12M – Compliance Assurance Monitoring

Includes general CAM requirements and specific requirements for the two PSEU at the facility.

13M – Hogged Fuel Boiler Monitoring, Recordkeeping and Reporting Requirements

Includes specific monitoring, recordkeeping and reporting requirements from Notice of Construction Approval Order No. DE 91AQ-E123, 1st Amendment and PSD -X80-01, First Amendment.

14M – Hogged Fuel Boiler Testing Requirements

Includes source testing requirements from Notice of Construction Approval Order No. DE 91AQ-E123, 1st Amendment.

15M – Hogged Fuel Boiler COMS Requirements

Includes requirements from Notice of Construction Approval Order No. DE 91AQ-E123, 1st Amendment. The COMS provides a direct measure of opacity. Use of a COMS provides sufficient assurance of compliance.

16M – Hogged Fuel Boiler, Multiclone and EFB O&M Manuals

Requires periodic reviews of O&M Manuals to ensure that any changes in equipment or operating procedures are incorporated. Required by Notice of Construction Approval Order No. DE 91AQ-E123, 1st Amendment.

17M – Hogged Fuel Boiler Derating

Includes requirements to derate the boiler from its 60,000 lb/hour nameplate rating. Derating the boiler is necessary to ensure compliance with emission limits in Notice of Construction Approval Order No. DE 91AQ-E123, 1st Amendment.

18M – Use of Hog Fuel Boiler Abort Gate

Includes requirements for use of the abort gate. Use of the abort gate bypasses the EFB control device and is restricted to emergency situations only.

19M – PCWP MACT Stack Testing Requirements

Includes specific source testing requirements from 40 CFR 63, subpart DDDD.

20M – PCWP MACT Monitoring Requirements

Includes specific source testing requirements from 40 CFR 63, subpart DDDD and 40 CFR 63.8.

21M – PCWP MACT Recordkeeping

Includes specific monitoring required by 40 FR 63.2282 & 2283.

22M – PCWP MACT Notification

Includes specific monitoring required by 40 FR 63.2280.

23M – PCWP MACT Reporting

Includes specific reporting required by 40 FR 63.2281.

24M – Miscellaneous Coating Operations

Includes initial and continuing compliance demonstrations from Tables 6 and 8 of the PCWP MACT.

25M – Softwood Veneer Dryers

Includes initial and continuing compliance demonstrations from Tables 6 and 8 of the PCWP MACT.

26M – Startup, Shutdown and Malfunction Plan

Includes requirements for development and revision of SSM Plan, recordkeeping and reporting from 40 CFR 63.6 & 63.10.

27M – Cleaver Brooks CBEX Elite Natural Gas (NG) Boilers O&M Manual

Requires periodic reviews of O&M Manual.

28M – Cleaver Brooks CBEX Elite Natural Gas (NG) Boilers Tune-Ups

Includes emissions limits and sets continuous compliance requirements as specified in 40CFR Part 63 Subpart DDDDD, 63.7540(a)(10)(i) through (vi).

29M – Cleaver Brooks CBEX Elite Natural Gas (NG) Boilers Recordkeeping

Includes record keeping requirements for the NG boilers.

15.0 Streamlining Explanations

Streamlining allows simplification of permits by including only the most stringent of overlapping requirements if compliance with the most stringent will assure compliance with the others.

The following requirements have been streamlined and are not included in the AOP:

15.1 Order No. 07AQER-243, 1st amendment, Condition 2.1: Conduct an initial performance test not later than March 30, 2009.
This condition is redundant with 40 CFR 63.2261(a), cited in MRRR 19M(2).

15.2 Order No. 07AQER-243, 1st amendment, Condition 1.1: Operation of the ESP and RTCO.
This condition is redundant with 40 CFR 63.2250(a), cited in condition 5.8.2 and 40 CFR63.2250(c), cited in condition 5.8.4.

15.3 Order No. 07AQER-243, 1st amendment, Condition 1.3.1: Maintaining the 3-hour block average catalyst temperature.
This condition is redundant with 40 CFR 63, Subpart DDDD, Table 2(2), cited in condition 5.9.1.4.

15.4 Order No. 07AQER-243, 1st amendment, Condition 1.3.2: Check catalyst activity annually.
This condition is redundant with 40 CFR 63, Subpart DDDD, Table 2(2), cited in condition 5.9.1.5.

15.5 Order No. 07AQER-243, 1st amendment, Condition 1.4: Maintaining the 3-hour block average firebox temperature in thermal mode.
This condition is redundant with 40 CFR 63, Subpart DDDD, Table 2(1) condition, cited in condition 5.9.1.2.

15.6 Order No. 07AQER-243, 1st amendment, Condition 2.2: Notification of performance test.
This condition is redundant with 40 CFR 63.7(b)(1), cited in MRRR 22M 1)a).

15.7 Order No. 07AQER-243, 1st amendment, Condition 2.3: Performance test under representative operating conditions.
This condition is redundant with 40 CFR 63.2262(b)(2), cited in MRRR 19M 2).

15.8 Order No. 07AQER-243, 1st amendment, Condition 5.2.1: Records of 3-hour block firebox temperatures.
This condition is redundant with 40 CFR 63.2282 (b), cited in MRRR 21M.

15.9 Order No. 07AQER-243, 1st amendment, Condition 5.2.2.1: Records of 3-hour block average catalyst temperatures.
This condition is redundant with 40 CFR 63.2282 (b), cited in MRRR 21M.

15.10 Order No. 07AQER-243, 1st amendment, Condition 5.2.2.2: Records of annual catalyst activity checks.
This condition is redundant with 40 CFR 63.2282 (b), cited in MRRR 21M.

15.11 Order No. DE99AQ-E103, Condition 7.3, report annual PM emissions.
This condition is redundant with Standard Condition 2.10.4, *Emission Inventory*.

15.12 Order No. DE99AQ-E103, Condition 7.2, report source test results.
This condition is redundant with Standard Condition 4.4.3, *Test Reports.*

15.13 WAC 173-400-070(2)(a), "Hog fuel boilers shall meet all provisions of WAC 173-400-040 and 173-400-050(1), except that emissions may exceed twenty percent opacity for up to fifteen consecutive minutes once in any eight hours."

Condition 5.7.1 limits opacity from the hog fuel boiler stack to not more than 10% for more than 6 minutes in one hour. The limit in condition 5.7.1 is more restrictive, and the limit in WAC 173-400-070(2)(a) is not included in the AOP.

15.14 WAC 173-400-050(1) limits emissions of particulate material from combustion and incineration units to less than 0.2 grains/dscf of exhaust gas.

Condition 1 of PSD-X80-01(referenced in condition 5.6.2 of the AOP) limits emissions of particulate matter from the FBC stack to less than 0.04 gr/dscf.

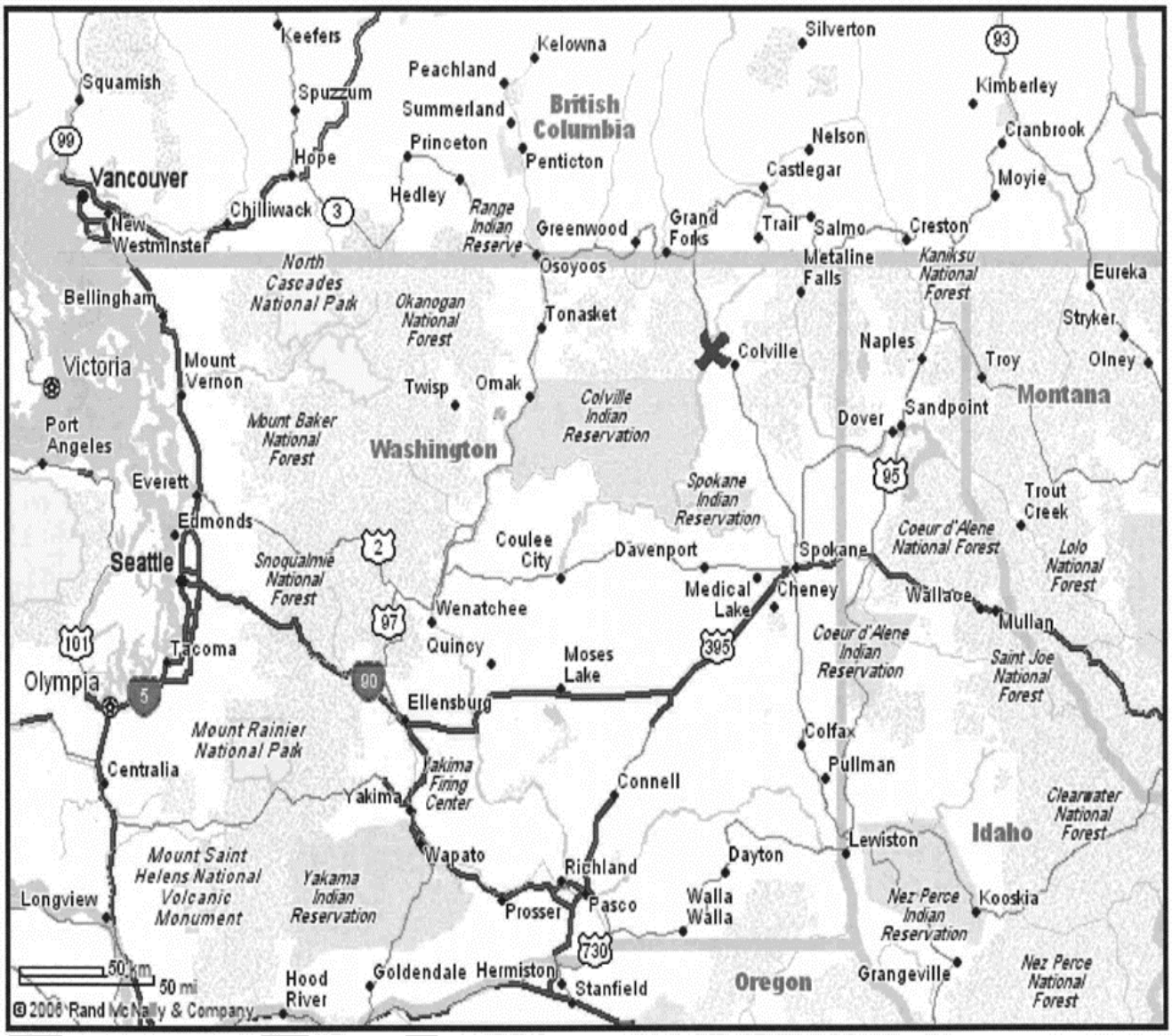
Condition 1(a) of Order No. DE91AQ-E123, 1st Amendment (referenced in condition 5.7.4 of the AOP) limits emissions of particulate matter to less than 0.030 gr/dscf.

The limits in Orders PSD-X80-01 and DE91AQ-E123, 1st Amendment are more stringent than WAC 1730-400-050(1), and the WAC limit is not included.

16.0 Comments and Corresponding Responses

Comments received during the public comment period and EPA review period are on file at Ecology's Eastern Region Office in Spokane, along with Ecology's response to the comments.

17.0 Appendix A, Location Map



18.0 Appendix B, Site Plan