DEPARTMENT OF
ECOLOGY
State of Washington

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

Statement of Basis for
Air Operating Permit Number DRAFT
VAAGEN BROTHERS LUMBER, INC.
Colville Sawmill
Colville, 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 $\leq$ 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 document, the Statement of Basis, is required by WAC 173-401. It summarizes the legal and factual basis for the permit conditions in the AOP issued by the State of Washington Department of Ecology to Vaagen Brothers Lumber, Inc. (VBL) for a lumber mill located in Colville, Washington. Unlike the AOP, this document is not legally enforceable. This Statement of Basis summarizes the emitting processes at the facility, air emissions, permitting and compliance history, the statutory regulatory provisions that relate to the facility, and the steps taken to provide opportunities for public review of the permit. Vaagen Brothers Lumber is obligated to follow the terms of the permit. Any errors or omission in the summaries provided here do not excuse the permittee from the requirements in the permit.

Annual Potential to Emit in Tons per Year (tpy)

Emission Units	PM-10 (tpy)	PM-2.5 (tpy)	CO (tpy)	NO_X (tpy)	SO_2 (tpy)	VOC (tpy)	Individual HAPs > 1 (tpy)
Hog Fuel Boiler[1]	3.6	3.1	279.3	102.4	11.6	7.90	3.40 Hydrogen Chloride
Lumber Drying Kilns 1 - 3[2]	2.9	2.9	-	-	-	60.0	1.75 Acetaldehyde 5.68 Methanol
Lumber Drying Kiln 4[3]	1.3	1.3	-	-	-	28.7	2.75 Acetaldehyde 4.25 Methanol
Lumber Drying Kilns 5, 6[4]	0.9	0.9	-	-	-	68.8	6.20 Acetaldehyde 6.68 Methanol
Planer Baghouse	19.4	19.4	-	-	-	-	-
Facility Wide Totals	28.1	27.6	279.3	102.4	11.6	165.2	30.7 Combined HAPs

[1] Emission factors from AP 42.
[2] Dry kiln HAP and VOC potentials to emit (PTEs) were calculated using January 2021 EPA Region 10 HAP and VOC emission factors. Factors are weighted according to log species distribution.
[3] Dry kiln HAP and VOC potentials to emit (PTEs) were calculated using emission factors from Order 05AQ-E139, except for Larch Pine factors, which are from December 2012 EPA Region 10 HAP and VOC emission factors. Factors are weighted according to log species distribution.
[4] Dry kiln HAP and VOC potentials to emit (PTEs) were calculated using emission factors from NOC 11AQ-E419. Factors are weighted according to log species distribution.

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	Vaagen Brothers Lumber, Inc
3.2 Facility Name	Colville Sawmill
3.3 Unified Business Identification Number	600-037-066
3.4 Facility Address	565 W. Fifth Avenue, Colville, WA 99114
3.5 Responsible Official	Nathan Sarber, Plant Manager
3.6 Mailing Address	565 W. Fifth Avenue, Colville, WA 99114
3.7 Facility Contact	Nathan Sarber, Plant Manager
3.8 Facility Contact Phone Number	(509) 684-5071

4.0 Basis for Title V Applicability

Vaagen Brothers Lumber, Inc., Colville Sawmill, (VBL) is subject to Title V, Air Operating Permit Regulations, due to the potential to emit carbon monoxide (CO), Nitrogen Oxides (NOx), Volatile Organic Compounds (VOCs), and Hazardous Air Pollutants (HAPs) in excess of the major source threshold. WAC 173-401-200(19)(a) identifies any source that directly emits or has the potential to emit ten tons per year (tpy) or more of any

hazardous air pollutant which has been listed pursuant to section 112(b) of the FCAA, or twenty-five 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).

5.0 Attainment Classification

The facility is in an area that is classified as in attainment for all criteria pollutants as of January 1, 2024.

6.0 Facility Description

The facility covers 80 acres, of which approximately half is used to produce lumber and generate electricity. The active portion of the facility includes log storage, log preparation, a sawmill with a debarking-and-sawing line, lumber drying kilns, a planer mill for finishing the lumber, a powerhouse for supplying steam, and turbines that convert a portion of the facility's steam to electricity. Repair and maintenance facilities for vehicles and equipment are also located at the facility. A site plan is included as Appendix A. Appendix B shows the process flow diagram, and Appendix C shows the facility location map.

6.1 *Log Storage and Sawmill* – Raw logs are delivered by truck to the mill and sorted by size, checked for metal contaminants, assessed for trueness and overall quality, and then sorted in segregated piles prior to being processed. The mill uses a large crane to move the logs about the storage area and to transport them to the sawmill.

Logs are debarked at the debarker located inside the sawmill. Bark from the debarking process is transported via conveyers to the hog which reduces it into a smaller material, called hog fuel, which is stored either in a silo or on the ground by the powerhouse for use in the mill's hogged fuel boiler or for sale to outside parties. A double-cut band saw and a hew saw cut debarked logs into dimensional lumber. Much of the lumber is dried in the mill's kilns, but some is sold rough (as is) from the sawmill.

6.2 *Lumber Drying* – Rough lumber from the sawmill is transferred to six double track lumber kilns. Non-contact steam from the powerhouse heats the kilns to dry the lumber to approximately 20 percent moisture or less. After drying, the lumber is removed from the kilns and allowed to cool outdoors or in the dry shed.

Dry Kilns No. 1 - No. 3 – Three double-track dry kilns were installed when the facility was built in 1972. The kilns are indirectly heated by steam from the boiler and have a total drying capacity of about 116.8 million board feet per year. Kilns No. 1-No. 3 are subject to the general standards of WAC 173-400.

Dry Kiln No. 4 – The double-track dry kiln designated Kiln No. 4 was moved from the closed Vaagen Bros. Lumber mill in Republic, Washington in 2005. Vaagen identified the drying capacity of the kiln as about 19 million board feet per year. Because the hog fuel boiler operates at maximum steam generating capacity, with steam in excess of kiln demand being used for electrical generation, no increase in steam production was proposed as part of the project. Order No. 05AQ-E139 limited Kiln throughput to 19 million board feet per year and restricted the mix of species dried.

Order No. 05AQ-E139, 1st Amendment (issued July 15, 2005) simplified the limit on wood species processed in the dry kiln. The 19 million board feet per year throughput limit remained unchanged.

Order No. 05AQ-E139, 2nd Amendment (issued December 26, 2006) approved modifications to the heat transfer system that would increase the drying capacity of the kiln. The Order approved an increase in the throughput limit to 50 million board feet per year. Total drying capacity kilns one through four is approximately 167 million board feet per year.

Dry Kilns No. 5 and No. 6 – In June 2011, Vaagen proposed construction of two new Wellons Kilns (numbers 5 and 6). They are both double track dry kilns with a capacity of 71,000,000 board feet per year. There was no expected increase in steam demand from the hogged fuel boiler. Order No. 15AQ-E601 limits throughput to 90,000,000 bf/yr. The throughput limit is to prevent exceedance of the acetaldehyde ASIL. Dry bulb temperature must not exceed 200°F. Temperature shall be monitored at all times during kiln operation, and the doors shall be kept closed during operation. Douglas Fir, Lodgepole Pine, and Hemlock are the only approved lumber to be dried in the kilns. [15AQ-E601, Issued 9/9/2015].

6.3 *Planer Mill* – Dried lumber is transferred to the planer mill for surfacing. Planer exhaust is routed through a product recovery cyclone followed by a baghouse. Surfaced lumber is graded for quality and sent to trim saws, which remove flaws in the finished lumber. Finished lumber is sorted by length, packaged, and stored in a lumber warehouse on site. Planer shavings are transferred pneumatically to a product recovery cyclone. Particulate emissions from the cyclone are controlled by a baghouse. Covered conveyors transfer shavings collected by the cyclone to a fuel silo by the powerhouse or to a truck bin near the chip and sawdust bins. Trim from the trim saws is chipped, screened (with oversized

material being re-chipped), and blown into truck trailers. These trailers are hauled over near the chip bunker, and the chips are dumped into a pit that transfers them, via auger and conveyor, to the same railcar collection system that serves the sawmill.

6.4 *Hog Fuel Boiler* – The boiler is rated at 60,000 pounds of steam per hour. The annual average steam production rate is approximately 48,000 pounds per hour. Annual steam production is approximately 400 million pounds at 500 psig. High pressure steam from the boiler passes through a turbine for electrical generation. Low pressure steam extracted downstream of the turbine is used to heat the dry kilns. Steam production is limited by fuel supply, and the boiler is normally operated to generate as much steam as possible. Any available steam in excess of dry kiln demand is used in electrical generation.

Fuel for the boiler is a mixture of hogged bark from the debarking system and dry planer shavings. All fuel is generated onsite. Fuel use is not measured. Estimated annual fuel use is approximately 40,000 tons (dry).

The hog fuel boiler was installed in 1978 under Order No. DE78-495 as a replacement for a wigwam burner used to dispose of wood waste. Pollution control consisted of a multiclone. Order No. DE78-495 limited emissions of filterable particulate matter to 50 tons per year.

The ESP was added under Order No. 17AQ-E014 to achieve compliance with the 50 ton per year particulate matter emission limit. Order No. 17AQ-E014 included limits on particulate matter grain loading and opacity.

6.5 *Planer Baghouse* – In November 2004, Vaagen proposed construction of a new planer facility, including a planer with particulate emissions controlled by a new high efficiency cyclone and baghouse. The proposed new planer was to replace the existing 30 plus year-old planer and two low-efficiency cyclones—one on the boiler fuel silo and one on the truck bin silo. Shavings from the new planer are transferred pneumatically to a new high-efficiency cyclone, and conveyed to the boiler fuel silo, the truck bin or to ground storage. Particulate emissions from the new cyclone are controlled by a Western Pneumatics baghouse. New pickup points in the planer building collect dust formerly emitted as fugitive emissions. Ecology estimated that the project would decrease potential planer PM_{10} emissions from 43 tons to approximately 10.3 tons and would not increase lumber or steam production. Order No. 04AQ-E137 was issued under WAC 173-400-114—*Requirements for replacement or substantial alteration of emission control technology at an existing stationary source*. The Order includes limits on opacity and grain loading from the baghouse stack.

6.6 *Maintenance* - A maintenance shop in the sawmill is used for general maintenance, including the sharpening of saw blades, while the planer mill houses a tool shop for more general maintenance. A truck maintenance shop provides service to mill vehicles.

6.7 Miscellaneous - Miscellaneous sources at the facility include a range of units (i.e., a log yard, facility roads, and process water pond) and activities (i.e., fuel storage and dispensing, and finished-lumber storage and *shipping).*

7.0 Facility Emission Units/Processes

7.1 Facility wide (Section 2.1 in AOP) - point source emission units and/or processes, including the planer shavings cyclone.

7.2 Hogged fuel boiler (Section 2.2 in AOP).

7.3 Lumber drying kiln No. 4 (Section 2.3 in AOP).

7.4 Lumber drying kilns No. 5 and No. 6 (Section 2.4 in AOP).

7.5 Planer Baghouse (Section 2.5 in AOP).

8.0 Title V Facility Timeline

8.1	December 3, 1997	Original Title V AOP issued (Order No. DE 97AQ-E158)
8.2	December 3 2002	AOP Order No.DE 97AQ-E158 Expired
8.3	December 14, 2005	AOP Order No. 03AQER-5910, 1st Revision Issued
8.4	January 1, 2009	AOP Order No. 03AQER-5910, 1st Revision Expired
8.5	April 23, 2009	AOP Order No. 08AQ-E277 Issued
8.6	April 30, 2014	AOP Order No. 08AQ-E277 Expired
8.7	August 1, 2019	AOP Order No. 19AQ-E008 Issued
8.8	July 31, 2024	AOP Order No. 19AQ-E008 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 (August 1, 2019), the following VBL NOC Approval Orders have been modified:

On September 16, 2020, **Order No. 20AQ-E032** superseded and rescinded Orders No. 17AQ-E014 and DE 78-485, 1st Amendment. The new amended order covers modernization of the Air Episode Curtailment requirements.

On September 16, 2020, **Rescission Order No. 20AQ-E043** rescinded Order No. DE 98AQ-E132. The natural gas boiler was removed.

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	10/06/16
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	02/24/20
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	12/23/19	-

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 DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

This Subpart applies to VBL wood waste boiler since this subpart applies to major sources of HAPs and VBL is a major source of HAPs. ***Therefore, this regulation is applicable to VBL.***

11.2 New Source Performance Standards (NSPS)

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

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)]

Because the hog fuel boiler is located at a major source and burns biomass as defined under 40 CFR 63.11237, the hog fuel boiler is subject to 40 CFR 63, Subpart DDDDD, Boiler MACT standards for "Industrial, Commercial, and Institutional Boilers and Process Heaters for Major Sources." Since the boiler is subject to a continuous compliance determination method under a part 70 permit, the unit is exempt from CAM per criteria 5.

13.0 Applicable/Inapplicable Requirements Determinations/Explanations

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

13.1.1 Order No. 04-09, Issued January 3, 1974. *The Order included a compliance schedule for modifications and installation of the natural gas boiler (originally fired with hogged fuel). The Order included the requirement to permanently shut down the wigwam burner at the Colville mill. All requirements of this Order have been satisfied.*

13.1.2 Order No. DE 78-495, Approval Condition 1, *A source test will be completed, and a copy of the report sent to the Department of Ecology, Eastern Regional Office within 90 days of the boiler becoming operational. Testing was conducted on July 16, 1980. The test report was received by Ecology on August 6, 1980.*

13.1.3 Order No. DE 88-E172, Approval Condition 4, *The permittee shall submit any ESP voltage-current curves conducted by the vendor during startup testing. The air load curves are included in the source test report received by Ecology on August 19, 1998*.

13.1.4 Order No. DE 98AQ-E132, Approval Condition 4, *A site specific O&M Manual shall be developed for the natural gas fired boiler and completed within 180 days of issuance of the Order. Ecology received the O&M manual on March 31, 1999.*

13.1.5 Order No. DE 98AQ-E132, Approval Conditions 5, 5.1, 5.1.1, 5.1.2, *Within 60 days of achieving the maximum (steam) production rate at which the boiler will be operated following conversion to a low-NOx burner, conduct testing for CO and NOx emissions. Ecology received the test report on March 31, 1999*.

13.1.6 Order No. DE 98AQ-E132, Approval Condition 6.5, *The permittee must notify Ecology prior to the startup of the converted natural gas boiler. Notification was sent to Ecology on March 25, 1999*.

13.1.7 Order No. 04AQ-E137, Approval Condition 6.1, *The Order becomes invalid if construction does not commence within 18 months of receipt of the final renewal permit, construction is discontinued for 18 months or more, or construction is not complete within a reasonable time. All construction requirements were completed within 18 months*.

13.1.8 Order No. 04AQ-E137, Approval Condition 9.4, *The required submittal of ESP voltage-current curves generated during startup testing. The curves were submitted and are in Ecology files*.

13.1.9 Order No. 05AQ-E139, Approval Condition 4.1, *The Order becomes invalid if construction does not commence within 18 months of receipt of the final renewal permit, construction is discontinued for 18 months or more, or construction is not complete within a reasonable time. The Order was issued on January 3, 2005. Vaagen reported startup of the kiln in March 2005*.

13.1.10 Order No. 17AQ-E014, Approval Condition 4.3, *Source testing using RM 5 (Filterable PM), RM 22 (Condensable PM), and RM 10 (Carbon Monoxide) shall be conducted by August 1, 1998. Testing was conducted on July 21 – 22, 1998. The test report was received by Ecology on August 19, 1998, and is in the facility source testing file at Ecology's Eastern Regional Office in Spokane, Washington.*

13.1.11 Order No. 17AQ-E014, Approval Condition 6.2, *A copy of the opacity CEMS quality assurance procedures shall be submitted to Ecology for approval within 90 days of the boiler becoming operational. A copy of the QA manual for the opacity meter was received by Ecology's Eastern Regional Office in Spokane on August 31, 1998, and is on file.*

13.1.12 Order No. 17AQ-E014, Approval Condition 6.3, *The ESP Ash Handling and Disposal Plan shall be developed, and a copy sent to Ecology for review within 90 days of installation of the ESP. The Ash Handling and Disposal Plan is described in a letter dated September 15, 1898. The plan is updated in a letter dated October 11, 2002, from Mr. Robert Heater of Vaagen Brothers Lumber.*

13.1.13 Order No. 17AQ-E014, Approval Conditions 7 (various components) and 9.3, *Per the stipulation and settlement agreement, Part 6 – Future Vaagen Actions, the permittee shall meet the action items and dates per the following compliance schedule:*

- *Certified progress report by November 15,1997. Received November 13, 1997.*
- *Shop fabrication (of the ESP) completed by May 1, 1998. Received April 1, 1998.*
- *Certified progress report submitted by May 15, 1998. Received May 15, 1998.*

- *Field erection (of the ESP) completed by June 1, 1998. Received June 24, 1998.*
- *Startup completed by July 1, 1998. Received June 24, 1998.*
- *Compliance test completed by August 1, 1998. Testing took place July 21-22, 1998.*

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.

14.1 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.

14.2 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.

14.3 2M – 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.

14.4 3M – 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.

14.5 4M – 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.

14.6 5M – Fuel type

WAC 1730-400-040 (6) limits SO2 emissions from combustion sources to 1,000 ppm, corrected to 7 percent oxygen. Based on stoichiometric analysis, the exhaust from the hog fuel boiler will not exceed 1,000 ppm while burning low-sulfur fuels.

14.7 6M – Hog Fuel Boiler Stack Testing

This monitoring has been specified to rely on periodic source testing in order to gain a reasonable assurance of compliance with the various pollutant limits that apply to the hog fuel boiler. The monitoring includes requirements from Order No. 20AQ-E032.

14.8 7M – Compliance Assurance Monitoring (CAM) Monitoring, Recordkeeping and Reporting

This monitoring has been specified to apply generally to units subject to CAM. The monitoring is included specifically as required by 40 CFR 64.

14.9 8M – Continuous Opacity Monitoring System (COMS)

Order No. 20AQ-E032 includes requirements for installation, operation and maintenance of a COMS. Additional recordkeeping requirements have been included as gap-filling.

14.10 9M – Hog Fuel Boiler Monitoring, Recordkeeping and Reporting

Includes specific monitoring, recordkeeping and reporting requirements from Order No. 20AQ-E032. Additional recordkeeping requirements have been included as gap-filling.

14.11 10M – Hog Fuel Boiler O&M Manual

Includes specific O&M Manual requirements from Section 6 of Order No. 20AQ-E032.

14.12 11M – CAM Monitoring, Recordkeeping and Reporting

Includes specific actions required by 40 CFR 64.3, 64.4(d), 64.7(d), 64.7(e) and 64.8.

14.13 12M – Dry Kiln No. 4 Recordkeeping

Includes specific recordkeeping requirements from Order No. 05AQ-E139 2nd Amendment.

14.14 13M – Planer Monitoring, Recordkeeping and Reporting

Includes specific monitoring, recordkeeping and reporting requirements from Order No. 04AQ-E137.

14.15 14M – Dry Kilns No. 5 and No. 6

Includes record keeping, performance testing, test methods, test duration, test protocol, and results submittal of performed testing. [Order No. 15AQ-E601]

14.16 15M – Boiler MACT

Includes the various requirements for the Boiler MACT [40 CFR 63.7480 (Subpart DDDDD)]. This section includes:

1) Conducting initial tune-up

2) Maintaining records of tune-ups

3) Demonstration of compliance testing

4) Requirement of potential performance testing for CO and PM

5) Notification of intent for performance testing

6) Development of site-specific stack test plan

7) Installation of CO/Oxygen Continuous Emissions Monitoring System (CEMS)

8) Submittal of performance test results

9) Submittal of compliance status

10) Maintaining an opacity limit of less than 10 percent on a duty block average basis

11) Operation and maintenance of Oxygen trim system

12) Submittal of semi-annual compliance reports

13) Submittal of compliance reports every five years

14.17 16M – Startup, Shutdown, and Malfunction Plan

Includes requirements for the Startup, Shutdown, and Malfunction Plan that is required for the hog fuel boiler that was not covered in previous AOP [40 CFR 63.6].

15.0 Streamlining Explanations

No applicable requirements underwent streamlining for purposes of this AOP.

16.0 Comments and Corresponding Responses

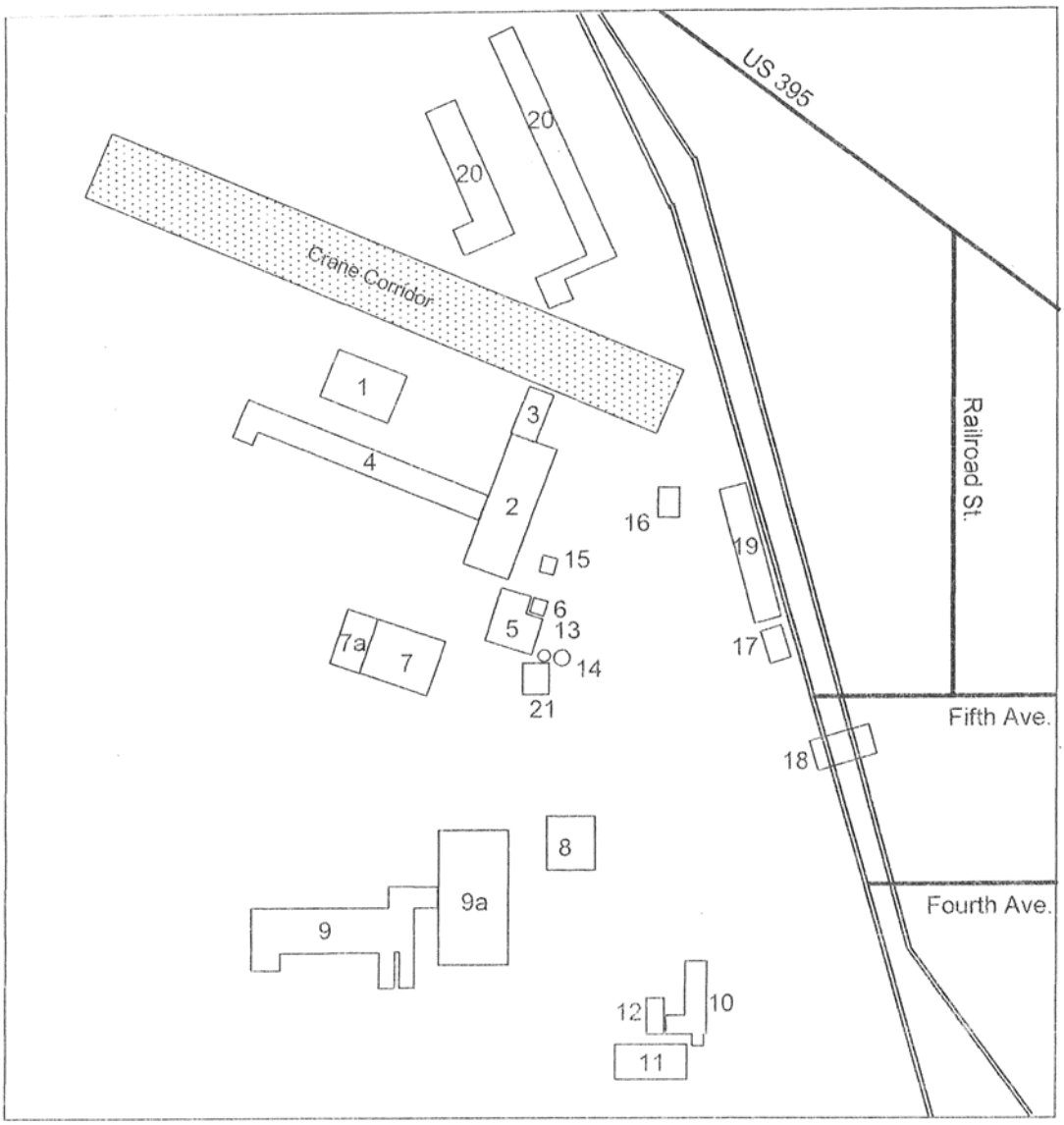
Comments received during the public comment period and EPA review period are on file at Ecology's Eastern Region Office in Spokane, along with Ecology's response to the comments.

17.0 Appendix A – Site Plan

18.0 Appendix B – Vaagen Bros. Lumber Process Flow

19.0 Appendix C – Vaagen Bros. Lumber Location Map

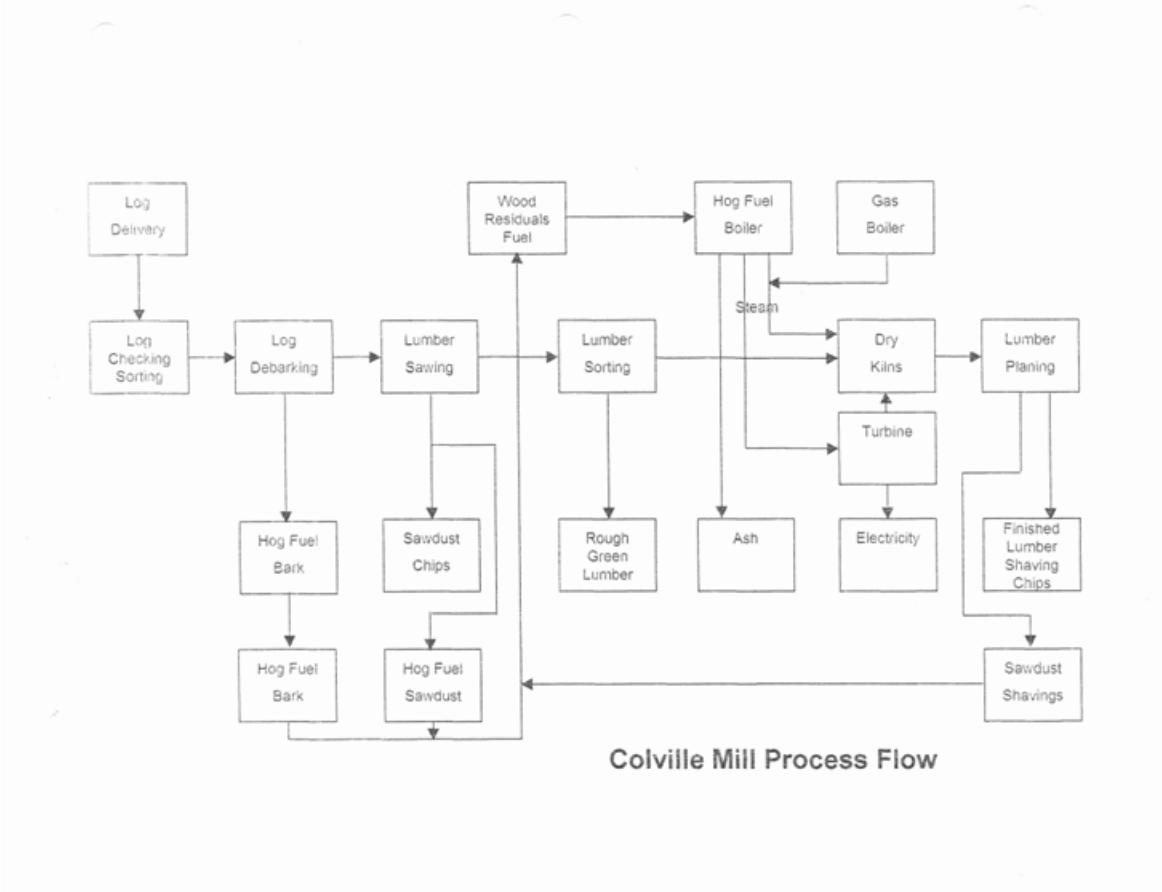
Appendix A, Site Plan



1. Debarker and Whole Log Chipper
2. Hewsaw and Doublecut Saw
3. Debarking Area
4. Lumber Sorter
5. Boilers and Electricity Cogeneration
6. ESP
7. Dry Kilns
7a. New Dry Kiln
8. Dry Shed
9. Old Planer
9a. New Planer Addition
10. Fabrication Shop
11. Vehicle Maintenance Shop
12. Storage
13. Small Silo (Shavings)
14. Hog Fuel Silo
15. Hog Fuel Prep
16. Storage Bins
17. Chip Pit
18. Railcar Loading Hopper
19. Chip Bunker
20. Log Processing
21. New Baghouse

Site Map
Colville Mill
Vaagen Brothers Lumber

Appendix B, Vaagen Bros. Lumber Process Flow



Appendix C, Vaagen Bros. Lumber Location Map