

ORDER OF APPROVAL

NOTICE OF CONSTRUCTION 23NOC1615
ISSUED to Hoquiam Plywood Products on

FEB 02 2024

This Order of Approval ("Order") is issued in accordance with Olympic Region Clean Air Agency ("ORCAA") Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6.

Conditional approval to install a new 10.5 MMBtu/hr natural gas-fired boiler and relocate the existing 13.4 MMBtu/hr natural gas-fired boiler located at 1000 Woodlawn Street, in Hoquiam ("Approved Location"), for operation solely as described in the associated Notice of Construction ("NOC") application 23NOC1615, is hereby GRANTED to Hoquiam Plywood Products ("Applicant"), subject to the Conditions of Approval listed below.

This Order and the Conditions of Approval herein remain in effect for the life of the Approved Equipment as used at the Approved Location and shall be binding on Applicant, current owners and operators of the equipment, and Applicant's heirs, successors and assigns unless amended or superseded by a subsequent Order issued by ORCAA or unless the equipment is permanently shut down. The Applicant must notify any subsequent owner, operator, heirs, successor or assigns of this Order and the Conditions of Approval herein.

Conditions of Approval established in this Order shall be enforceable in addition to any applicable state, local and federal regulations, or standards in existence now or in the future. Compliance with the conditions of this Order do not relieve the Applicant or any owner or operator from compliance with ORCAA Regulations, chapter 70A.15 of the Revised Code of Washington, or any other emissions control requirements, nor from any penalties for failure to comply with the same. Applicant may appeal this Order to the Pollution Control Hearings Board ("PCHB") by filing a written appeal with the PCHB and serving a copy upon ORCAA within thirty (30) days of receipt of this Order.

This Order is GRANTED, subject to the following Conditions of Approval:

1. **Approved Equipment.** The 10.5 MMBtu/hr natural gas-fired boiler and 13.4 MMBtu/hr natural gas-fired boiler as described in Notice of Construction application No. 23NOC1615 and the associated Final Determination are approved for construction and operation subject to conditions in this Order of Approval.

[Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(l); 40 CFR Part 52, §52.2470(c), Table 6]

2. **Preapproval Required.** Prior approval by ORCAA may be required for the following as specified in ORCAA Rule 6.1:
 - a. Construction, installation, or establishment of any stationary source;
 - b. Modification to any existing stationary source;

- c. Replacement or substantial alteration of emission control technology installed on an existing stationary source; or,
- d. Deviations from the approved plans, drawings, data, and specifications of the stationary sources listed in Table 1.

Table 1 Stationary sources located at Hoquiam Plywood

Emission Unit	Description
EU1 – Burnham Boiler (new)	Firetube Steam Boiler Produces high pressure steam for plywood presses Fuel: Natural Gas Only Manufacturer: Burnham Model: 4SP-250 Max Heat Input: 10.5 MMBtu/hr Stack diameter: 20 inches
	Design Heat Rate: 13.39 MMBtu/hr Fuel: Natural gas Manufacturer: North American Manufacturing Company Model: 4575-12 Serial #: 60-6832 Backup use only

[Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(l); WAC 173-400-110(2); WAC 173-400-111(10)]

3. **Boiler Requirements:** The following limits and requirements apply to the boilers (EU1 and EU2):
 - a) **Stack Height:** The exhaust stack must have a vertical discharge to the atmosphere at least six feet above the peak height of the associated boiler housing structure. Flow obstructions at the point of discharge from the stack (i.e., caps) are prohibited. However, a weatherproof stack exhaust configuration that does not obstruct the air flow as it exits the stack is acceptable.
 - b) **Approved Fuels:** The boiler is approved to burn natural gas only unless prior approval is granted by ORCAA.
 - c) **Opacity Limit:** Visible emissions from the boiler must not exceed five percent opacity, six-minute rolling average, as determined in accordance with EPA 40 CFR Part 60 Appendix A, Method 9. This limit does not apply during periods of cold start-up. For the purpose of compliance with this condition, cold start-up is defined as the period of time beginning when the boiler is started and ending when the boiler reaches normal operating temperature. This opacity limit is in addition to the state-wide general opacity standard of 20% required under WAC 173-400-040(1) and ORCAA Rule 8.2.
 - d) **EU1 NOx Limit:** Emissions of oxides of nitrogen (NOx) from the Burnham boiler must not exceed 20 ppmvd @ 3% O₂ on a one-hour average basis except during startup and shutdown.

- e) **EU 1 CO Limit:** Emissions of carbon monoxide (CO) from the Burnham boiler must not exceed 50 ppmvd @ 3% O₂ on a one-hour average basis except during startup and shutdown.
- i) **Boiler Tuning:** Each boiler must be tuned in the first month of operation and then at least once every 61 months as follows: Tuning will include measuring concentrations of NO_x, CO, and O₂ from each boiler under normal loading using an electrochemical cell combustion analyzer, analyzer used for reference method testing, or other analyzer pre-approved by ORCAA;
 - ii) The analyzer(s) response to span gas of a known concentration must be determined before and after testing.
 - iii) No more than 12 hours may elapse between span gas response checks.
 - iv) The results of the analyzer response check will not be valid if the pre and post response check results vary by more than 10% of the span gas value.
 - v) The CO and NO_x span gas concentrations must be no less than 50% and no more than 200% of the emission concentration corresponding to the Manufacturer's recommended operating range for the boiler.
 - vi) A lower concentration span gas may be used if it is more representative of measured concentrations.
 - vii) Ambient air may be used to zero the CO and NO_x cells/analyzer(s) and span the oxygen cell/analyzer.
 - viii) Corrective actions must be initiated promptly if results from tuning show O₂, NO_x or CO concentrations to be out-of-range, and then rechecked to confirm the boiler is operating properly.
- f) **Concurrent Operation Prohibited:** Except for maintenance and testing scenarios as needed, only one boiler may operate at any given time.

[Regulatory Basis: ORCAA Rule 6.1.4(a)(2); WAC 173-400-113(2); WAC 173-460-040(3)]

4. **Boiler Operations and Maintenance Plan** – Hoquiam Plywood must follow the recommended operation and maintenance procedures supplied by the manufacturer of each boiler at all times. If manufacturer procedures are not available for a boiler, Hoquiam Plywood must develop operation and maintenance procedures for the boiler within 30 days of startup of the boiler. Hoquiam Plywood must follow the operation and maintenance procedures at all times.

[Regulatory Basis: ORCAA Rule 6.1.4(a)(2); ORCAA Rule 4.3(g)]

5. **Boiler Testing:** When required by ORCAA, Hoquiam Plywood must conduct testing of the boilers to verify compliance with emission limits as follows:
- a) All testing will be in accordance with federal reference methods 1, 2, 3, 4, 5, 7e, 9 and 10 found of 40 CFR Part 60, appendix A. Equivalent methods may be used if approved by ORCAA in advance.
 - b) Hoquiam Plywood must submit to ORCAA for approval, a Test Plan specifying test methods, equipment and procedures proposed to be used during stack testing. The Test Plan must be submitted at least 30 days prior to any stack testing used for compliance demonstration purposes.

c) Hoquiam Plywood must submit to ORCAA results from any stack testing within 45 days from conducting the test unless prior approval is granted by ORCAA.

[Regulatory Basis: ORCAA 1.5(i)]

6. **Required Records:** The owner or operator must keep the following records and maintain them for at least five years after the record is created:

- a) Record of boiler startups, shutdowns, and malfunctions including the date, time, and duration of each;
- b) Record of corrective actions to maintain each boiler including the date, time, and description of each corrective action.
- c) Results of any boiler stack testing.
- d) The monthly amount of natural gas combusted by the boilers.
- e) Copy of the recommended operation and maintenance procedures for each boiler.

[Regulatory Basis: ORCAA 8.11; 40 CFR Part 60, §60.7(a, b); 40 CFR Part 60, §60.48c(g)(3); 40 CFR Part 52, §52.2470(c), Table 6]

7. **Notifications:** The owner or operator must notify ORCAA and Region 10 of the Environmental Protection Agency the following information:

- a) A notification of the date construction of the EU1 boiler is commenced postmarked no later than 30 days after such date;
- b) A notification of the actual date of initial startup of the EU1 boiler postmarked within 15 days after such date.

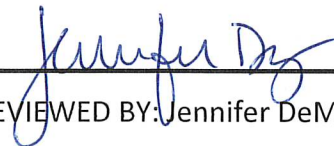
[Regulatory Basis: 40 CFR Part 60, §60.7(a); ORCAA 1.5(i); ORCAA 8.11]



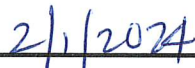
PREPARED BY: Aaron Manley, PE



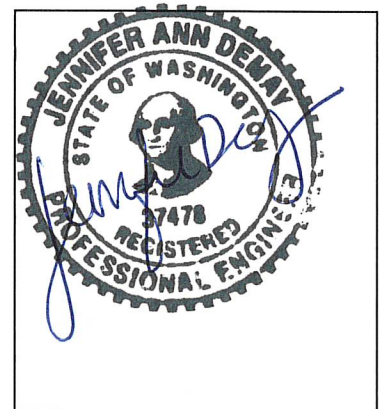
Date



REVIEWED BY: Jennifer DeMay, PE



Date





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NEW SOURCE FINAL DETERMINATION to APPROVE:

Natural Gas-Fired Boiler and Boiler Relocation

Hoquiam Plywood Products

23NOC1615

January 16, 2024

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NOTICE OF CONSTRUCTION
FINAL DETERMINATION TO APPROVE

Olympic Region Clean Air Agency

Issued to:	Hoquiam Plywood Products	County:	Grays Harbor (27)
Location:	1000 Woodlawn Street Hoquiam, WA 98550	Source:	46
Application #:	23NOC1615	RC:	RC1
Prepared on:	January 16, 2024	File:	243

1. Summary

Hoquiam Plywood Products (Hoquiam Plywood) seeks approval from Olympic Region Clean Air Agency (ORCAA) to install and establish a 10.5 MMBtu/hr natural gas-fired boiler at 1000 Woodlawn Street, Hoquiam, Washington. Hoquiam Plywood also plans to relocate the existing 13.46 MMBtu/hr natural gas-fired boiler and continue using it in a backup capacity. Installing a boiler and relocating an existing boiler are each considered establishing a stationary source and requires ORCAA's approval under ORCAA Rule 6. ORCAA staff reviewed Hoquiam Plywood's proposal and concluded it may be conditionally approved. Recommended conditions of approval are detailed in Section 17 of this Final Determination report.

2. Regulatory Background

Pursuant to the Washington Clean Air Act under chapter 70A.15 of the Revised Code of Washington, ORCAA's Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6¹ require New Source Review (NSR) for new stationary sources of air pollution (referred to as new sources) in ORCAA's jurisdiction. NSR is also required prior to installing, replacing, or substantially altering any air pollution control technology. NSR generally refers to the process of evaluating air quality impacts and the likelihood of compliance with applicable air regulations and standards. NSR and approval of an air permit by ORCAA is required prior to commencing construction or modification of any new source or prior to installing, replacing, or substantially altering air pollution control technology. The goal of NSR is to assure compliance with applicable air regulations and standards, including equipment performance standards and ambient air quality standards.

¹ A State Implementation Plan (SIP) is a collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and enforce the National Ambient Air Quality Standards, or NAAQS, and to fulfill other requirements of the federal Clean Air Act. The Clean Air Act requires the EPA to review and approve all SIPs. ORCAA's SIP was last approved by EPA in 1995.

NSR is initiated by a project proponent submitting an air permit application referred to as Notice of Construction (NOC) application², which provides ORCAA information on the proposed project of sufficient detail to characterize air impacts. NOC applications are posted on ORCAA’s website and may undergo a public notice and comment period if requested by the public or if emissions increases trigger an automatic public notice. Approval of a NOC in an attainment or unclassifiable area³ is contingent on verifying a proposed project meets the following criteria from ORCAA’s Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6:

1. **Performance Standards** - The new stationary source will likely comply with applicable air-performance standards such as federal new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAPs), or any performance standards adopted under chapter 70A.15 RCW;
2. **BACT** - The new stationary source will employ “Best Available Control Technology” (BACT) to control all air pollutants emitted;
3. **RACT** – Replaced or substantially altered air pollution control technology meets the standard of “Reasonably Available Control Technology” (RACT) as defined in ORCAA Rule 1.4;
4. **Ambient Air Quality** – Emissions from the new stationary source will not cause or contribute to a violation of any ambient air quality standard;
5. **Federal Air Permitting Requirements** - The new stationary source secures all applicable federal air permits that may apply; and,
6. **Air Toxics** - If there are increases in toxic air pollutant (TAP) emissions, the requirements of Washington’s Controls for New Sources of Toxic Air Pollutants under Chapter 173-460 WAC are met.

In this case, Hoquiam Plywood is proposing to establish a 10.5 MMBtu/hr natural gas-fired boiler at their plywood manufacturing facility located in Hoquiam, Washington and relocate an existing backup 13.46 MMBtu/hr natural gas-fired boiler. Establishing a boiler and relocating a boiler is considered establishing a stationary source and requires ORCAA’s approval under ORCAA Rule 6. Additionally, the new boiler will cause an increase in the facility-wide potential to emit.

3. Facility Background

² There are two categories of NOC applications: Notice of Construction (NOC) and Notice of Construction Revision (NOR). NOCs are required for new or modified sources, new control technology, replacing an existing stationary source or control technology, and substantially altering control technology. NORs are required when an owner or operator requests a revision to an existing air permit issued by ORCAA.

³ Unclassified area or “attainment area” means an area that has not otherwise been designated by EPA as nonattainment with ambient air quality standards for a particular regulated pollutant. Attainment area means any geographic area in which levels of a given criteria air pollutant (e.g., ozone, carbon monoxide, PM10, PM2.5, and nitrogen dioxide) meet the health-based National Ambient Air Quality Standards (NAAQS) for that pollutant. An area may be an attainment area for one pollutant and a nonattainment area for others.

Hoquiam Plywood has operated a plywood manufacturing facility at this location since as early as 1970, which predates the Washington State Clean Air Act. Hoquiam Plywood was registered with ORCAA on 7/22/1970.

Table 1. Permitting History with ORCAA

Permit # (date)	Description	Status
82NOC329 (5/28/1982)	Installation of log handling equipment (no permit conditions)	Active
83NOC339 (5/17/83)	Installation of a 4 x 10 – 30 opening hot press used to laminate veneers into plywood (no permit conditions)	Active
86NOC364 (3/21/86)	Installation of a veneer dryer (no permit conditions)	Active
95SMO243 (4/24/95)	Synthetic minor order limiting resin use to 4.3 million pounds per 12-month period. Limits emissions of Formaldehyde and Phenol directly and all other pollutants indirectly through bottlenecking.	Voided by 99SMO056
99SMO056 (7/20/99)	Synthetic minor order limiting plant-wide emissions over any 12-consecutive month period to 9.5 TPY any individual HAP and 24 TPY total combined HAP	Active
00NOC050 (12/10/2002)	Install a low NOx 16 MMBtu/hr natural gas-fired heater on veneer dryer #3	Active

4. Facility Description

Hoquiam Plywood was first registered with ORCAA July 22, 1970 and is designated as a synthetic minor source for total HAP and individual HAP. Hoquiam Plywood buys veneer to make into plywood. Most veneer comes from the Pacific Veneer plant in Aberdeen. Hoquiam Plywood dries the veneer (some comes already dried, but most comes “green”), applies resin, and presses the sheets of veneer to produce plywood. Emissions are produced from the veneer dryers, boilers, resin glue, and wood finishing-sanding and cutting.

Table 2: Existing Emission Units at Hoquiam Plywood Products

Emission Unit	Description
EU1 – Hog Fuel Boiler (removed)	Permanently shut down in 2009.
EU2 – Natural Gas-fired boiler	Design Heat Rate: 13.39 MMBtu/hr Fuel: Natural gas Manufacturer: North American Manufacturing Company Model: 4575-12 Serial #: 60-6832 Serves as backup to new 10.5 MMBtu/hr natural gas-fired boiler

EU3 – Veneer Dryer #1 (removed in 1999)	No longer at facility; included for informational purposes
EU4 – Veneer Dryer #2	Direct-fired dryer Design Heat Rate: 12 MMBtu/hr Fuel: Wood waste from mill with backup natural gas “Moore” wet scrubber
EU5 – Veneer Dryer #3	Low NOx high velocity-high turndown burner Design Heat Rate: 16 MMBtu/hr Fuel: Wood waste from mill with backup natural gas
EU6 – Veneer Lay-up and Plywood Pressing	Layup Operation Plywood Presses #1 – William White – up to 30 sheets Plywood Press #2 – Columbian – up to 26 sheets
EU7 – Baghouse #1	Dryer #3 baghouse
EU8 – Baghouse #2	Mill sander baghouse
EU9 – Clark’s Bin Cyclone	
EU10 – Old Fuel Bin Cyclone	
IEU1 – Hammer Hog	
IEU2 – Hog Fuel Pile	

Figure 1: Site Map of the Hoquiam Plywood Products Plant in Hoquiam, WA



Imagery ©2023 Airbus, CNES/Airbus, Maxar Technologies, USDA/FPAC/GEO, Map data ©2023
Image taken from Google and annotated by ORCAA staff.

5. Project Description

The entire project will take place in the existing boiler building. Hoquiam Plywood proposes to install a 10.5 MMBtu/hr natural gas-fired boiler to provide high pressure steam to the existing plywood presses. There is an existing natural gas-fired boiler (EU2) that will remain on-site in a backup capacity. EU2 has always been housed within the boiler building and will remain in the boiler building with the new Burnham boiler (EU1). EU2 will be relocated within the boiler building to be sited in the footprint of a previous wood-fired boiler that was removed several years ago.

Table 3: New and Relocated Boilers

Emission Unit	Description
EU1 – Burnham Boiler (new)	Firetube Steam Boiler Produces high pressure steam for plywood presses Fuel: Natural Gas Only Manufacturer: Burnham Model: 4SP-250 Max Heat Input: 10.5 MMBtu/hr Stack Height: 6+ feet above peak height of building Stack diameter: 20 inches
EU2 – North American boiler (relocated)	Design Heat Rate: 13.39 MMBtu/hr Fuel: Natural gas Manufacturer: North American Manufacturing Company Model: 4575-12 Serial #: 60-6832 Stack Height: 6+ feet above peak height of building Serves as backup to new 10.5 MMBtu/hr natural gas-fired boiler

6. Emission Increases

ORCAA staff calculated maximum potential to emit (PTE) information for the new boiler. PTE was evaluated assuming 8,760 hrs/yr of operation and using AP-42 emissions factors for natural gas combustion. Emission calculations for TAPs are discussed in more detail in Section 13.

Table 4. PTE of the 10.5 MMBtu/hr Boiler

Pollutant	Classification (Criteria ^a /HAP ^b /TAP ^c)	Emission Rate (lb/hr)	Emission Rate (lb/day)	Emission Rate (tons/yr)
PM (Total Particulate)	Contains Criteria	0.08	1.86	0.34
PM ₁₀ (Total Particulate) (<= 10 µm)	Criteria	0.08	1.86	0.34
PM _{2.5} (Fine Particulate (<=2.5 µm))	Criteria	0.08	1.86	0.34

Ground Level Ozone (O ₃)	Criteria	Not evaluated for this proposal		
VOC ^d (Volatile Organic Compounds as VOC)	Criteria (Precursor to ozone)	0.06	1.35	0.25
SO ₂ (Sulfur Dioxide)	Criteria	6.12E-03	1.47E-01	2.68E-02
NO _x (Nitrogen Oxides)	Contains Criteria	2.54E-01	6.10E+00	1.11E+00
CO (Carbon Monoxide)	Criteria and TAP	0.39	9.28	1.69
Lead	Criteria, TAP, and HAP	5.10E-06	1.22E-04	2.23E-05
Hazardous Air Pollutants (total HAP)	HAP	1.93E-02	4.62E-01	8.43E-02
Toxic Air Pollutants (total TAP)	TAP	1.93E-02	4.62E-01	8.43E-02
Benzene	HAP and TAP	2.14E-05	5.14E-04	9.38E-05
Dichlorobenzene	HAP and TAP	1.22E-05	2.94E-04	5.36E-05
Formaldehyde	HAP and TAP	7.65E-04	1.84E-02	3.35E-03
n-Hexane	HAP and TAP	1.84E-02	4.40E-01	8.04E-02
Naphthalene	HAP and TAP	3.47E-05	8.32E-04	1.52E-04
Toluene	HAP and TAP	3.47E-05	8.32E-04	1.52E-04
Arsenic	HAP and TAP	2.04E-06	4.89E-05	8.93E-06
Beryllium	HAP and TAP	1.22E-07	2.94E-06	5.36E-07
Cadmium	HAP and TAP	1.12E-05	2.69E-04	4.91E-05
Chromium (III)	HAP and TAP	1.37E-05	3.29E-04	6.00E-05
Chromium (VI)	HAP and TAP	5.71E-07	1.37E-05	2.50E-06
Cobalt	HAP and TAP	8.56E-07	2.06E-05	3.75E-06
Lead	HAP and TAP	5.10E-06	1.22E-04	2.23E-05
Manganese	HAP and TAP	3.87E-06	9.30E-05	1.70E-05
Mercury	HAP and TAP	2.65E-06	6.36E-05	1.16E-05
Nickel	HAP and TAP	2.14E-05	5.14E-04	9.38E-05
Selenium	HAP and TAP	2.45E-07	5.87E-06	1.07E-06
Acenaphthene	HAP	1.84E-08	4.40E-07	8.04E-08
Acenaphthylene	HAP	1.84E-08	4.40E-07	8.04E-08
Anthracene	HAP	2.45E-08	5.87E-07	1.07E-07
Benz(a)anthracene	HAP and TAP	1.84E-08	4.40E-07	8.04E-08
Benzo(a)pyrene	HAP and TAP	1.22E-08	2.94E-07	5.36E-08
Benzo(b)fluoranthene	HAP and TAP	1.84E-08	4.40E-07	8.04E-08
Benzo(g,h,i)perylene	HAP	1.22E-08	2.94E-07	5.36E-08
Benzo(k)fluoranthene	HAP and TAP	1.84E-08	4.40E-07	8.04E-08
Chrysene	HAP and TAP	1.84E-08	4.40E-07	8.04E-08
Dibenz(a,h)anthracene	HAP and TAP	1.22E-08	2.94E-07	5.36E-08
7,12-Dimethylbenz(a)anthracene	HAP and TAP	1.63E-07	3.91E-06	7.14E-07
Fluoranthene	HAP	3.06E-08	7.34E-07	1.34E-07
Fluorene	HAP	2.85E-08	6.85E-07	1.25E-07

Indeno(1,2,3-c,d)pyrene	HAP and TAP	1.84E-08	4.40E-07	8.04E-08
2-Methylnaphthalene	HAP	2.45E-07	5.87E-06	1.07E-06
3-Methylchloranthrene	HAP and TAP	1.84E-08	4.40E-07	8.04E-08
Phenanthrene	HAP	1.73E-07	4.16E-06	7.59E-07
Pyrene	HAP	5.10E-08	1.22E-06	2.23E-07

^a EPA has established national ambient air quality standards (NAAQS) for six of the most common air pollutants— carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as “criteria” air pollutants (or simply “criteria pollutants”).

^b HAP means Hazardous Air Pollutant. Hazardous Air Pollutants are those known to cause cancer and other serious health impacts and are regulated under the federal Clean Air Act.

^c TAP means any toxic air pollutant regulated in Washington and listed in WAC 173-460-150.

^d VOC is regulated as a Criteria Air Pollutant because it is a precursor to Ground Level Ozone (O₃)

ORCAA staff calculated maximum PTE information for the existing relocated boiler. PTE was evaluated assuming 8,760 hrs/yr of operation and using AP-42 emissions factors for natural gas combustion.

Table 5. PTE of the existing 13.4 MMBtu/hr Boiler

Pollutant	Classification (Criteria ^a /HAP ^b /TAP ^c)	Emission Rate (lb/hr)	Emission Rate (lb/day)	Emission Rate (tons/yr)
PM (Total Particulate)	Contains Criteria	0.10	2.38	0.43
PM ₁₀ (Total Particulate) (<= 10 μm)	Criteria	0.10	2.38	0.43
PM _{2.5} (Fine Particulate (<=2.5 μm))	Criteria	0.10	2.38	0.43
Ground Level Ozone (O ₃)	Criteria	Not evaluated for this proposal		
VOC ^d (Volatile Organic Compounds as VOC)	Criteria (Precursor to ozone)	0.07	1.72	0.31
SO ₂ (Sulfur Dioxide)	Criteria	7.83E-03	1.88E-01	3.43E-02
NO _x (Nitrogen Oxides)	Contains Criteria	3.25E-01	7.81E+00	1.43E+00
CO (Carbon Monoxide)	Criteria and TAP	0.50	11.88	2.17
Lead	Criteria, TAP, and HAP	6.53E-06	1.57E-04	2.86E-05
Hazardous Air Pollutants (total HAP)	HAP	2.46E-02	5.91E-01	1.08E-01
Toxic Air Pollutants (total TAP)	TAP	2.46E-02	5.91E-01	1.08E-01
Benzene	HAP and TAP	2.74E-05	6.58E-04	1.20E-04
Dichlorobenzene	HAP and TAP	1.57E-05	3.76E-04	6.86E-05
Formaldehyde	HAP and TAP	9.79E-04	2.35E-02	4.29E-03
n-Hexane	HAP and TAP	2.35E-02	5.64E-01	1.03E-01
Naphthalene	HAP and TAP	4.44E-05	1.06E-03	1.94E-04

Toluene	HAP and TAP	4.44E-05	1.06E-03	1.94E-04
Arsenic	HAP and TAP	2.61E-06	6.26E-05	1.14E-05
Beryllium	HAP and TAP	1.57E-07	3.76E-06	6.86E-07
Cadmium	HAP and TAP	1.44E-05	3.45E-04	6.29E-05
Chromium (III)	HAP and TAP	1.75E-05	4.21E-04	7.68E-05
Chromium (VI)	HAP and TAP	7.31E-07	1.75E-05	3.20E-06
Cobalt	HAP and TAP	1.10E-06	2.63E-05	4.80E-06
Lead	HAP and TAP	6.53E-06	1.57E-04	2.86E-05
Manganese	HAP and TAP	4.96E-06	1.19E-04	2.17E-05
Mercury	HAP and TAP	3.39E-06	8.14E-05	1.49E-05
Nickel	HAP and TAP	2.74E-05	6.58E-04	1.20E-04
Selenium	HAP and TAP	3.13E-07	7.52E-06	1.37E-06
Acenaphthene	HAP	2.35E-08	5.64E-07	1.03E-07
Acenaphthylene	HAP	2.35E-08	5.64E-07	1.03E-07
Anthracene	HAP	3.13E-08	7.52E-07	1.37E-07
Benz(a)anthracene	HAP and TAP	2.35E-08	5.64E-07	1.03E-07
Benzo(a)pyrene	HAP and TAP	1.57E-08	3.76E-07	6.86E-08
Benzo(b)fluoranthene	HAP and TAP	2.35E-08	5.64E-07	1.03E-07
Benzo(g,h,i)perylene	HAP	1.57E-08	3.76E-07	6.86E-08
Benzo(k)fluoranthene	HAP and TAP	2.35E-08	5.64E-07	1.03E-07
Chrysene	HAP and TAP	2.35E-08	5.64E-07	1.03E-07
Dibenz(a,h)anthracene	HAP and TAP	1.57E-08	3.76E-07	6.86E-08
7,12-Dimethylbenz(a)anthracene	HAP and TAP	2.09E-07	5.01E-06	9.15E-07
Fluoranthene	HAP	3.92E-08	9.40E-07	1.71E-07
Fluorene	HAP	3.65E-08	8.77E-07	1.60E-07
Indeno(1,2,3-c,d)pyrene	HAP and TAP	2.35E-08	5.64E-07	1.03E-07
2-Methylnaphthalene	HAP	3.13E-07	7.52E-06	1.37E-06
3-Methylchloranthrene	HAP and TAP	2.35E-08	5.64E-07	1.03E-07
Phenanthrene	HAP	2.22E-07	5.32E-06	9.72E-07
Pyrene	HAP	6.53E-08	1.57E-06	2.86E-07

^a EPA has established national ambient air quality standards (NAAQS) for six of the most common air pollutants— carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as “criteria” air pollutants (or simply “criteria pollutants”).

^b HAP means Hazardous Air Pollutant. Hazardous Air Pollutants are those known to cause cancer and other serious health impacts and are regulated under the federal Clean Air Act.

^c TAP means any toxic air pollutant regulated in Washington and listed in WAC 173-460-150.

^d VOC is regulated as a Criteria Air Pollutant because it is a precursor to Ground Level Ozone (O₃)

7. Administrative Requirements for NOC Applications

NOC applications are subject to filing fees according to ORCAA Rule 3.3(b) and may incur additional NOC processing fees at an hourly rate according to ORCAA Rule 3.3(c). Applicable NOC filing fees for Hoquiam Plywood's NOC application were paid prior to ORCAA commencing processing of the application. Additional NOC processing fees may apply and will be determined and assessed prior to issuing a Final Determination and the Approval Order (a.k.a.: Air Permit).

NOC applications are subject to a 15-day public notice and an opportunity to request a 30-day public comment period and opportunity for a public hearing. Public notice of Hoquiam Plywood's NOC application was posted on ORCAA's website on September 14, 2023. The time period for filing comments on the application and requests for a public comment period expired on September 29th, 2023. No comments on the NOC application or requests for a public comment period or hearing were received during the NOC application noticing period. Based on this result, neither a public comment period nor public hearing were initiated.

8. SEPA Review

The State Environmental Policy Act (SEPA) under Chapter 197-11 WAC is intended to provide information to agencies, applicants, and the public to encourage the development of environmentally sound proposals. The goal of SEPA is to assure that significant impacts are mitigated.

The lead agency for this project is the City of Hoquiam. The City of Hoquiam issued a SEPA determination of non-significance (DNS) # SEPA 23-03 on November 8, 2023.

9. Criteria for Approval

ORCAA's Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, establish the following general criteria for approving new stationary sources and modifications to existing stationary sources of air pollution in ORCAA's region:

- **Performance Standards** - Any new stationary source or modification will likely comply with applicable air-performance standards such as the federal new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAPs), and any performance standards adopted under chapter 70A.15 RCW;
- **BACT** - The new or modified stationary source is controlled to a level that meets the standard of "Best Available Control Technology" (BACT);
- **Ambient Air Quality** – Any increase in air emissions will not cause or contribute to violation of any ambient air quality standard;
- **Federal Air Permitting Requirements** – All applicable federal air permits, if required, are secured;
- **Washington Air Toxics Regulations** - If there are increases in toxic air pollutant (TAP) emissions, the requirements of Washington's Controls for New Sources of Toxic Air Pollutants under Chapter 173-460 WAC are met; and,
- **Public Outreach** – Public notice and comment requirements in ORCAA's regulations and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6 are met.

The following sections provide more detail on each criterion.

10. Applicable Performance Standards (Summary)

ORCAA’s Rule 6.1.4(a)(1) and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, require a finding that any new or modified stationary source will likely comply with applicable state, federal and local performance standards for air emissions including emission standards adopted under chapter 70A.15 RCW, emissions standard of ORCAA, and federal emission standards including New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), and National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT standards). The performance standards in Table 6 were determined applicable to the proposed 10.5 MMBtu/hr natural gas-fired boiler. The performance standards in Table 7 were determined relevant to the proposed 10.5 MMBtu/hr natural gas-fired boiler, but inapplicable. A comprehensive list of applicable performance standards that apply to all stationary sources of air pollution located at the facility, as well as general air regulations and standards that apply, are included in the Appendix.

Table 6: Applicable Performance Standards specific to the proposed 10.5 MMBtu/hr natural gas-fired boiler and relocated 13.4 MMBtu/hr natural gas-fired boiler

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	discussion/determination
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units <i>40 CFR Part 60, Subpart Dc</i>	Applies to commercial, industrial and small boilers (steam generating units) that commenced construction or were modified after June 9, 1989 and have a rated heat input greater than 10 million Btu/hr (MMBtu/hr) and less than 100 MMBtu/hr. Establishes standards for SO ₂ , PM, and opacity.	Applies, however the boilers are not subject to any emissions standards in Subpart Dc as the subpart does not have emissions standards for boilers firing natural gas. There are applicable recordkeeping and reporting requirements.
General Provisions <i>40 CFR Part 60, Subpart A</i>	All Part 60 affected sources (unless specifically excluded by an applicable NSPS) are subject to the general provisions in Subpart A.	Because 40 CFR Part 60, Subpart Dc applies to the boilers, certain requirements from Subpart A of 40 CFR Part 60 also apply.

Subpart Dc of 40 CFR Part 60 applies to boilers with heat rates between 10 MMBtu/hr and 100 MMBtu/hr heat input. Boilers firing natural gas alone are subject only to the recordkeeping requirements at §60.48c(g) and the general notification requirements under §60.7(a)(1) and (4) of 40 CFR Part 60, Subpart A. The following notifications and record keeping requirements apply:

- §60.7(a)(1) - Notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

- §60.7(a)(4) - Notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e).
- §60.48c(g)(3) – As an alternative to meeting the requirements of paragraph (g)(1), the owner or operator of an affected facility or facilities on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas and the steam generating units are not subject to an emissions standard (excluding opacity) in Subpart Dc: “may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.”

Table 7: Relevant Performance Standards Determined Inapplicable

Regulation Title Citation	Relevant Performance Standard Determined Inapplicable	Basis
National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources <i>40 CFR Part 63, Subpart JJJJJ</i>	Applies to industrial, commercial, or institutional boilers that is located at, or is part of, and area source of hazardous air pollutants (HAP).	Since the boilers will combust only natural gas, they are not subject to Subpart JJJJJ (40 CFR § 63.11195(e)).

11. Best Available Control Technology (BACT)

ORCAA Rule 6.1.4(a)(2) and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, require the finding that a new source or modification to an existing source of air pollution in an attainment or unclassifiable area will employ best available control technology for all pollutants (BACT) not previously emitted or whose emissions would increase as a result of the new source or modification.

New sources of air pollution and modifications to existing sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in WAC 173-400-030 as, *“an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under chapter 70A.15 RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant.”*

Hoquiam Plywood proposes to install a Burnham 4S Series Boiler with a low NOx burner. As the relocated North American Boiler is an existing boiler that will only be used for backup, no emission limits will be required as BACT. Both boilers will require regular tune-ups to assure they are operated efficiently and in a manner that minimizes emissions.

Table 8: BACT Summary

Emission Unit	NO _x (ppm @ 3% O ₂)	CO (ppm @ 3% O ₂)	PM, SO ₂ , VOC
EU1 – Burnham Boiler	20	50	Use of natural gas only and good combustion practices
EU2 – North American Boiler	Use of natural gas only and good combustion practices		

12. Ambient Impact Analysis (Criteria Pollutants)

ORCAA’s Rule 6.1.4(a)(3) and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, require emissions from any new stationary source or modification not delay the attainment date of an area not in attainment, nor cause or contribute to a violation of any Ambient Air Quality Standard (AAQS). ORCAA’s current Dispersion Modeling Guidance (2009) recommends this approval criteria be demonstrated using dispersion modeling techniques when Potential to Emit (PTE) of any pollutant with an ambient standard is above ORCAA’s adopted significant emission level for the pollutant. Any pollutant with a PTE below its significant emission level can be considered insignificant with respect to maintaining the AAQs.

ORCAA staff calculated PTE for criteria pollutants for both boilers operating concurrently 8,760 hours per year and compared them to ORCAA’s significant emission levels. All pollutants will be emitted below their respective threshold. Therefore, it can be concluded the AAQs will be maintained.

Table 9: AAQA Demonstration

Pollutant	Boilers Combined PTE (tons per year)	Significance Thresholds Criteria Pollutants (tons per year)
PM (Total Particulate)	0.77	2.5
PM10	0.77	1.5
PM2.5	0.77	1.5
SO ₂	0.06	4.0
NO _x	2.5	4.0
CO	3.9	10.0
Lead	0.10 lbs/year	120 lbs/year

13. Ambient Impact Analysis (Toxic Air Pollutants)

Washington’s regulation titled Controls for New Sources of Toxic Air Pollutants (Air Toxics Rule) under Chapter 173-460 of the Washington Administrative Code applies to new stationary sources of Toxic Air Pollutants (TAP), including modifications to existing emissions units that increase TAP. The purpose of the Air Toxics Rule is to, “... maintain such levels of air quality as will protect human health and safety.” The TAPs covered under the Air Toxics Rule include carcinogens and non-carcinogens. TAP emissions increases for determining applicability are the

increases attributable to the new or modified emissions unit - Decreases from existing emissions units are not allowed to be subtracted from project-attributable TAP increases when determining applicability. Also, the Air Toxics Rule provides that review of modifications are limited to the emission unit or units proposed to be modified and the TAPs whose emissions would increase as a result of the modification.

The Air Toxics Rule has two independent requirements for new sources and modifications that increase TAP emissions above de-minimis levels:

- 1) **t-BACT:** The new or modified emission units must use Best Available Control Technology to control TAP emissions (WAC 173-460-040(3)(a)).
- 2) **Ambient Impact:** The NOC application must demonstrate that any increase in TAP from the new or modified emission units are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects (WAC 173-460-070).

t-BACT

The t-BACT requirement applies to any new or modified emission units that triggers the Air Toxics Rule (results in a TAP increase above de-minimis levels), regardless of facility-wide or “net” TAP emissions. The term t-BACT means Best Available Control Technology, as that term is defined in WAC 173-400-030, but applied to control of TAP (see BACT definition in Section 11).

ORCAA staff reviewed the application and determined t-BACT is met by the use of natural gas fuel, and the implementation of good operating practices, which are summarized below.

Table 10: t-BACT Analysis

Emission Unit	t-BACT
EU1 – Burnham Boiler	Use of natural gas only and good combustion practices
EU2 – North American Boiler	Use of natural gas only and good combustion practices

Ambient Impact Review

The Air Toxics Rule provides a multi-tiered, screening approach under WAC 173-460-080 to assess health impacts and demonstrate compliance with the ambient impact requirement under WAC 173-460-070, which is that TAP increases must be sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects.

The “First Tier Review” (Tier 1 Review) is a two-step process. First, the emissions increase of each TAP is compared to its unique Small Quantity Emission Rate (SQER). SQERs are listed for each TAP under WAC 173-460-150. An SQER is the level of emissions of a TAP below which dispersion modeling is not required to demonstrate compliance with the ambient impact requirement. TAP emissions increases used in this first step must be based on the maximum potential to emit considering control or reduction in emissions achievable using the air pollution control technology or methods proposed to meet the tBACT requirement. Any TAP with an increase below its SQER can be presumed to be in compliance with the ambient impact

requirement. If this is the outcome, further analysis is not required for that TAP. However, TAPs with emissions increases above their SQER must undergo the second step of the Tier 1 Review.

The second step of the Tier 1 Review requires evaluating TAP impacts against Acceptable Source Impact Levels (ASIL) and is referred to as an ASIL Analysis. An ASIL is the adopted health-based concentration for a TAP below which can be presumed as meeting the ambient impact requirement of WAC 173-460-070. ASILs are provided for each TAP under WAC 173-460-150. An ASIL analysis typically involves using an ambient air dispersion model to estimate ambient concentrations resulting from TAP emissions increases and considering air dispersion and local meteorological characteristics of the source. If the modeled impact of the increase in emissions of a TAP does not exceed its corresponding ASIL, the ambient impact requirement of WAC 173-460-070 may be considered met and the First Tier Review is completed for that TAP.

For pollutants with ambient concentrations found to be greater than their ASIL, a “Second Tier Review” (Tier 2 Review) by the Washington Department of Ecology (Ecology) is required. An application for a Tier 2 Review by Ecology is referred to a Tier 2 petition. Tier 2 petitions must include a Health Impacts Assessment (HRA) and estimated ambient TAP impacts based on refined air dispersion modeling. Ecology will not act on a Tier 2 petition unless a written preliminary determination on the NOC application for the new or modified TAP source and a draft approval order have been completed by the local agency with jurisdiction. Ecology’s review and approval of a Tier 2 petition is contingent on a finding that TAP impacts meet the ambient impact requirement of WAC 173-460-070 that increases in TAP emissions are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects. If Ecology recommends denial of a Tier 2 petition, the permitting authority may not approve the project. The applicant then has the option of submitting a petition for a “Third Tier Review” (Tier 3 Review) by Ecology and a request for a risk management decision.

ORCAA staff calculated maximum potential TAP emissions associated with the new boiler using the natural gas combustion emissions factors found in AP-42. Some of the emissions factors in AP-42 are listed as being emitted below the method detection limit. ORCAA staff calculated PTE for project TAP emitted whose emissions factors are based on the detection limit threshold. As the existing relocated boiler will only be operated in a backup capacity when the new primary boiler is not operational, there will be a net decrease in TAP emissions from this unit and it was not included in the First Tier Review. The SQER analysis results are summarized below.

Table 11: New Boiler Toxics Analysis Against SQER

Toxic Air Pollutant	Washington Administrative Code 173-460 - tBACT Analysis			
	Project TAP Rates By Averaging Period (lb/avg. period)	Averaging Period	SQER (lb/avg. period)	Above SQER?
Benzene	0.19	year	21	--
1,4-Dichlorobenzene	0.11	year	15	--
Formaldehyde	6.70	year	27	--
n-Hexane	0.44	24-hr	52	--
Naphthalene	5.45E-02	year	4.8	--
Toluene	8.32E-04	24-hr	370	--

Arsenic	1.79E-02	year	4.90E-02	--
Beryllium	1.07E-03	year	6.80E-02	--
Cadmium	0.10	year	3.90E-02	YES
Chromium (III)	3.29E-04	24-hr	3.70E-01	--
Chromium (VI)	5.00E-03	year	6.50E-04	YES
Cobalt	2.06E-05	24-hr	7.40E-03	--
Lead	4.47E-02	year	14	--
Manganese	9.30E-05	24-hr	2.20E-02	--
Mercury	6.36E-05	24-hr	2.20E-03	--
Nickel	0.19	year	0.62	--
Selenium	5.87E-06	24-hr	1.50	--
Benz(a)anthracene	1.61E-04	year	0.89	--
Benzo(a)pyrene	1.07E-04	year	0.16	--
Benzo(b)fluoranthene	1.61E-04	year	0.89	--
Benzo(k)fluoranthene	1.61E-04	year	0.89	--
Chrysene	1.61E-04	year	8.90	--
Dibenz(a,h)anthracene	1.07E-04	year	8.20E-02	--
7,12-Dimethylbenz(a)anthracene	1.43E-03	year	1.40E-03	YES
Indeno(1,2,3-c,d)pyrene	1.61E-04	year	0.89	--
3-Methylchloranthrene	1.61E-04	year	1.60E-02	--

All TAP except Cadmium, Chromium VI, and 7, 12-Dimethylbenz(a)anthracene were found to be below their respective SQER. ORCAA staff then modeled the ambient impacts associated with the project, as summarized below.

Table 12: Toxics Analysis Against ASIL

Pollutant	Modeled Impact (ug/m ³)	ASIL (ug/m ³)	Pass/Fail
Cadmium	7.5E-05	2.4E-04	Pass
Chromium VI	3.8E-06	4.0E-06	Pass
7, 12-Dimethylbenz(a)anthracene	1.1E-06	5.5E-03	Pass

The modeled impacts of all modeled TAP were found to be below their respective ASILs, therefore the ambient impact requirement of WAC 173-460-070 may be considered met and the First Tier Review is completed for these TAPs.

ORCAA staff therefore concluded the ambient impact requirement of WAC 173-460-070 may be considered met and the First Tier Review is completed for all TAPs..

14. Requirements for Major Stationary Sources and Major Modifications to Major Stationary Sources

Projects that are major stationary sources and major modifications to major stationary sources as defined in 40 CFR 52.21(b) may be subject to permitting requirements under WAC 173-400-700 through 173-400-860.

Hoquiam Plywood is not a “Major Stationary Source” as defined in 40 CFR 52.21(b) and not subject to the permitting program required by WAC 173-400-700 through WAC 173-400-860. Therefore, these permitting requirements do not apply.

15. Title V Air Operating Permit (AOP) Implications

The State of Washington program pursuant to Title V of the federal Clean Air Act is governed under Chapter 173-401 WAC, the Washington Air Operating Permit Program. Chapter 173-401 WAC requires existing major stationary sources to operate in compliance with an approved Air Operating Permit (AOP). Major stationary sources are those stationary sources with a potential to emit which is greater than 100 tons per year of any criteria pollutant, greater than 10 tons per year of any hazardous air pollutants (HAP), or greater than 25 tons per year of any combination of HAP.

Hoquiam Plywood is not a “Major Source” under the Title V program and is not subject to the requirement to operate under an AOP.

Although Hoquiam Plywood has potential to emit greater than Title V major source thresholds, they have requested and received a voluntary limit on individual and total HAP emissions. They are currently operating as a synthetic minor source under Regulatory Order #99SMO056.

16. Environmental Justice Considerations

EPA defines Environmental Justice (EJ) as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The purpose of an EJ review in conjunction with an air permitting action is to ensure no group of people bear a disproportionate share of the negative environmental consequences as the result of the permitting action. Further, ORCAA strives to engage the affected community effectively and meaningfully regarding the permitting action, and to ensure compliance with obligations pursuant to Title VI of the Civil Rights Act. With respect to factoring EJ into air permitting decisions, EPA Region 10 expects air agencies to:

- Identify overburdened communities;
- Engage with communities;
- Evaluate cumulative impacts; and,
- Use available authority to minimize emissions.

However, EPA Region 10 does not expect air agencies to use the Clean Air Act’s authorities to address existing disproportional impacts to communities when implementing New Source Review in areas that are “attainment/unclassifiable” with respect to meeting the NAAQS. The following subsections describe how these expectations from EPA Region 10 were met.

16.1 Identify Overburdened Communities

The initial step in an EJ review is to identify any affected populations or communities of concern and to identify whether they are disproportionately impacted. ORCAA used EPA’s environmental

justice screening and mapping tool, EJScreen, to answer this first part of this question. An EJScreen Community Report was generated for Grays Harbor County. The Community Report estimates a minority population of 22%, with approximately 7% of the total population speaking Spanish and 9% speaking another Non-English language at home. All demographic indicators were below the 80th percentile for the nation. Likewise, the Community Report indicates that Grays Harbor County is below the 80th percentile for all environmental indicators. Environmental indicators above the 80th percentile are an indication that a community is already disproportionately impacted. Therefore, ORCAA staff's conclusion is that the project impact area does not include any preexisting, overburdened communities. A copy of the Community Report with more detailed information will be filed as part of the supporting documentation for the project.

Preexisting air quality impacts were evaluated based on ambient air quality monitoring data and designation of the area with respect to maintaining compliance with the NAAQS. If air quality in a geographic area meets or is cleaner than a national standard based on ambient air monitoring data, it is called an attainment area and designated "attainment/unclassifiable." Areas may also be presumed "attainment/unclassifiable" based on population density and air pollutant emissions being below certain thresholds. For this case, the project impact area and Thurston County as a whole is designated "attainment/unclassifiable." Therefore, there are no preexisting nonattainment issues identified within the County. The project's criteria emissions will not cause or contribute to a violation of an AAQS. Therefore, ORCAA staff's conclusion is that there are no indications of any existing disproportional impacts to communities of concern within the project impact area.

16.2 Engage with Communities

Based on the size and scope of the project, and that there are no overburdened communities near the project, ORCAA staff determined the public noticing procedures outlined in Section 7 above are sufficient notifications.

16.3 Evaluate Cumulative Impacts

The air permitting action for this case did not trigger a cumulative impacts analysis under either the Clean Air Act or the Washington Clean Air Act. The maximum emissions for each criteria pollutant was found to be below ORCAA's significant emission levels as demonstrated in Table 9 above. It can be concluded the AAQSs will be maintained.

16.4 Use Available Authority to Minimize Emissions

As described elsewhere in this report, ORCAA applied existing New Source Review authorities provided under the Clean Air Act and the Washington Clean Air Act to minimize emissions from the proposed and relocated boilers. Principally among these authorities is the requirement to use BACT for controlling emissions. The BACT requirement was applied and corresponding BACT emissions limits are included in the air permit.

17. Conditions of Approval

The following conditions of approval were determined necessary for assuring compliance with applicable air regulations and standards and protecting air quality. Recommended conditions of approval will become effective once the Approval Order is issued:

1. **Approved Equipment.** The 10.5 MMBtu/hr natural gas-fired boiler and 13.4 MMBtu/hr natural gas-fired boiler as described in Notice of Construction application No. 23NOC1615 and the associated Final Determination are approved for construction and operation subject to conditions in this Order of Approval.

[Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(l); 40 CFR Part 52, §52.2470(c), Table 6]

2. **Preapproval Required.** Prior approval by ORCAA may be required for the following as specified in ORCAA Rule 6.1:

- a. Construction, installation, or establishment of any stationary source;
- b. Modification to any existing stationary source;
- c. Replacement or substantial alteration of emission control technology installed on an existing stationary source; or,
- d. Deviations from the approved plans, drawings, data, and specifications of the stationary sources listed in Table 1.

Table 1 Stationary sources located at Hoquiam Plywood

Emission Unit	Description
EU1 – Burnham Boiler (new)	Firetube Steam Boiler Produces high pressure steam for plywood presses Fuel: Natural Gas Only Manufacturer: Burnham Model: 4SP-250 Max Heat Input: 10.5 MMBtu/hr Stack diameter: 20 inches
	Design Heat Rate: 13.39 MMBtu/hr Fuel: Natural gas Manufacturer: North American Manufacturing Company Model: 4575-12 Serial #: 60-6832 Backup use only
EU2 – North American Boiler (relocated)	

[Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(l); WAC 173-400-110(2); WAC 173-400-111(10)]

3. **Boiler Requirements:** The following limits and requirements apply to the boilers (EU1 and EU2):

- a) **Stack Height:** The exhaust stack must have a vertical discharge to the atmosphere at least six feet above the peak height of the associated boiler housing structure. Flow obstructions at the point of discharge from the stack (i.e., caps) are prohibited.

However, a weatherproof stack exhaust configuration that does not obstruct the air flow as it exits the stack is acceptable.

- b) **Approved Fuels:** The boiler is approved to burn natural gas only unless prior approval is granted by ORCAA.
- c) **Opacity Limit:** Visible emissions from the boiler must not exceed five percent opacity, six-minute rolling average, as determined in accordance with EPA 40 CFR Part 60 Appendix A, Method 9. This limit does not apply during periods of cold start-up. For the purpose of compliance with this condition, cold start-up is defined as the period of time beginning when the boiler is started and ending when the boiler reaches normal operating temperature. This opacity limit is in addition to the state-wide general opacity standard of 20% required under WAC 173-400-040(1) and ORCAA Rule 8.2.
- d) **EU1 NO_x Limit:** Emissions of oxides of nitrogen (NO_x) from the Burnham boiler must not exceed 20 ppmvd @ 3% O₂ on a one-hour average basis except during startup and shutdown.
- e) **EU 1 CO Limit:** Emissions of carbon monoxide (CO) from the Burnham boiler must not exceed 50 ppmvd @ 3% O₂ on a one-hour average basis except during startup and shutdown.
 - i) **Boiler Tuning:** Each boiler must be tuned in the first month of operation and then at least once every 61 months as follows: Tuning will include measuring concentrations of NO_x, CO, and O₂ from each boiler under normal loading using an electrochemical cell combustion analyzer, analyzer used for reference method testing, or other analyzer pre-approved by ORCAA;
 - ii) The analyzer(s) response to span gas of a known concentration must be determined before and after testing.
 - iii) No more than 12 hours may elapse between span gas response checks.
 - iv) The results of the analyzer response check will not be valid if the pre and post response check results vary by more than 10% of the span gas value.
 - v) The CO and NO_x span gas concentrations must be no less than 50% and no more than 200% of the emission concentration corresponding to the Manufacturer's recommended operating range for the boiler.
 - vi) A lower concentration span gas may be used if it is more representative of measured concentrations.
 - vii) Ambient air may be used to zero the CO and NO_x cells/analyzer(s) and span the oxygen cell/analyzer.
 - viii) Corrective actions must be initiated promptly if results from tuning show O₂, NO_x or CO concentrations to be out-of-range, and then rechecked to confirm the boiler is operating properly.
- f) **Concurrent Operation Prohibited:** Except for maintenance and testing scenarios as needed, only one boiler may operate at any given time.

[Regulatory Basis: ORCAA Rule 6.1.4(a)(2); WAC 173-400-113(2); WAC 173-460-040(3)]

- 4. **Boiler Operations and Maintenance Plan** – Hoquiam Plywood must follow the recommended operation and maintenance procedures supplied by the manufacturer of each boiler at all times. If manufacturer procedures are not available for a boiler, Hoquiam Plywood must develop operation and maintenance procedures for the boiler within 30 days

of startup of the boiler. Hoquiam Plywood must follow the operation and maintenance procedures at all times.

[Regulatory Basis: ORCAA Rule 6.1.4(a)(2); ORCAA Rule 4.3(g)]

5. **Boiler Testing:** When required by ORCAA, Hoquiam Plywood must conduct testing of the boilers to verify compliance with emission limits as follows:
- a) All testing will be in accordance with federal reference methods 1, 2, 3, 4, 5, 7e, 9 and 10 found of 40 CFR Part 60, appendix A. Equivalent methods may be used if approved by ORCAA in advance.
 - b) Hoquiam Plywood must submit to ORCAA for approval, a Test Plan specifying test methods, equipment and procedures proposed to be used during stack testing. The Test Plan must be submitted at least 30 days prior to any stack testing used for compliance demonstration purposes.
 - c) Hoquiam Plywood must submit to ORCAA results from any stack testing within 45 days from conducting the test unless prior approval is granted by ORCAA.

[Regulatory Basis: ORCAA 1.5(i)]

6. **Required Records:** The owner or operator must keep the following records and maintain them for at least five years after the record is created:
- a) Record of boiler startups, shutdowns, and malfunctions including the date, time, and duration of each;
 - b) Record of corrective actions to maintain each boiler including the date, time, and description of each corrective action.
 - c) Results of any boiler stack testing.
 - d) The monthly amount of natural gas combusted by the boilers.
 - e) Copy of the recommended operation and maintenance procedures for each boiler.

[Regulatory Basis: ORCAA 8.11; 40 CFR Part 60, §60.7(a, b); 40 CFR Part 60, §60.48c(g)(3); 40 CFR Part 52, §52.2470(c), Table 6]

7. **Notifications:** The owner or operator must notify ORCAA and Region 10 of the Environmental Protection Agency the following information:
- a) A notification of the date construction of the EU1 boiler is commenced postmarked no later than 30 days after such date;
 - b) A notification of the actual date of initial startup of the EU1 boiler postmarked within 15 days after such date.

[Regulatory Basis: 40 CFR Part 60, §60.7(a); ORCAA 1.5(i); ORCAA 8.11]

18. Final Determination to Approve

This Final Determination documents ORCAA staff's determinations with respect to the applicable criteria of approval in ORCAA Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6. ORCAA staff recommends approval of Hoquiam Plywood's proposed 10.5MMBtu/hr natural gas-fired boiler and relocation of the 13.4 MMBtu/hr natural gas-fired boiler, provided the conditions identified in Section 17 of this Final

Determination are implemented through an enforceable Order of Approval (AKA: Air Permit). Emissions calculations, modeling summary and other data supporting this Final Determination are provided as attachments.

~ end of section ~


PREPARED BY: Aaron Manley, PE
Date: 1/30/2024


REVIEWED BY: Jennifer DeMay, PE
Date: 2/1/2024

Attachments

Applicable Performance Standards that apply to Hoquiam Plywood Products

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to
Registration ORCAA Regulation 4	Requires facilities that are minor sources of emissions to register annually with ORCAA and pay annual registration fees.	Hoquiam Plywood will continue to be a synthetic minor source requiring registration.
Annual Registration Fees ORCAA Rule 3.1	Requires payment of annual registration fees to ORCAA based in part on air pollutants emitted during the previous year.	Hoquiam Plywood is required to register and pay annual registration fees.
Initial Notification ORCAA Rule 4.3(a)&(b); 4.3(f)	Requires facilities subject to registration to register by submitting an initial notification with the information in ORCAA Rule 4.3(b) within 30 days from: 1) Commencement of operation of any new or recommissioned stationary source; 2) Change in ownership of existing registered stationary source. The notification must be signed by the owner or operator or by the agent appointed by the owner.	
Administrative Change Notification ORCAA Rule 4.3(e); 4.3(f)	Requires facilities to notify ORCAA of any changes to administrative information within 30 days from the change taking place including, but not limited to, contact names, address, phone numbers, and permanent shut down or decommissioning of a stationary source. The notification must be signed by the owner or operator or by the agent appointed by the owner.	
Annual and/or Periodic Reports ORCAA Rule 4.3(c)&(d); 4.3(f)	Requires stationary sources to submit reports with information directly related to the registration program when requested by the Agency within 30 days of receipt of the request. The submittal must be signed by the owner or operator or by the agent appointed by the owner.	
Interference or Obstruction ORCAA Rule 7.1	Prohibits willfully interfering with or obstructing the Executive Director or any Agency employee in performing any lawful duty.	Applies generally to all air pollution sources

Attachments

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to
False or Misleading Statements ORCAA Rule 7.2	Prohibits any person from willfully making a false or misleading statement to the Board or its representative as to any matter within the jurisdiction of the Board.	Applies generally to all air pollution sources
Unlawful Reproduction or Alteration of Documents ORCAA Rule 7.3	Prohibits reproducing or altering, or causing to be reproduced or altered, any order, registration certificate or other paper issued by the Agency if the purpose of such reproduction or alteration is to evade or violate any provision of these Regulations or any other law.	Applies generally to all air pollution sources
Display of Orders and Certificates ORCAA Rule 7.4	Any order or registration certificate required to be obtained by these Regulations shall be available on the premises designated on the order or certificate. In the event that the Agency requires order or registration certificate to be displayed, it shall be posted. No person shall mutilate, obstruct, or remove any order or registration certificate unless authorized to do so by the Board or the Executive Director.	The Approval Order issued in conjunction with this NOC approval must be retained on site.
General Requirements WAC 173-400-040(1)(c) ORCAA Rule 8.3	All emissions units are required to use reasonably available control technology (RACT).	Applies generally to all air pollution sources.
Visible Emissions WAC 173-400-040(2) ORCAA Rule 8.2(a)	Prohibits emissions with opacity of greater than 20% for more than three (3) minutes in any one hour.	Applies generally to all air pollution sources
Sulfur Dioxide WAC 173-400-040(7)	No person shall cause or allow the emission from any emissions unit in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected to seven percent oxygen for combustion sources, and based on the average of any period of sixty consecutive minutes.	Applies generally to facilities that emit Sulfur Dioxide.
Control Equipment Maintenance and Repair ORCAA Rule 8.8	ORCAA Rule 8.8 requires that all air contaminant sources keep any process and/or air pollution control equipment in good operating condition and repair.	Applies generally to all air pollution control devices.

Attachments

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to
Fallout WAC 173-400-040(3) ORCAA Rule 8.3(e)	Prohibits particulate emissions from any source to be deposited, beyond the property under direct control of the owner or operator of the source, in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material was deposited.	Applies generally to all air pollution sources.
Fugitive Emissions WAC 173-400-040(4)(a) ORCAA Rule 8.3(c)	The owner or operator of any emissions unit engaging in materials handling, construction, demolition, or other operation which is a source of fugitive emission shall take reasonable precautions to prevent the release of air contaminants from the operation.	Applies generally to any activity that results in fugitive emissions.
Odor WAC 173-400-040(5) ORCAA Rule 8.5	ORCAA Rule 8.5 contains general requirements for controlling odors and a general prohibition of odors that unreasonably interfere with the use or enjoyment of a person's property.	Applies generally to all air pollution sources.
Emissions Detrimental to Persons or Property WAC 173-400-040(6) ORCAA Rule 7.6	Prohibits causing or allowing the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	Applies generally to all air pollution sources
Concealment and Masking WAC 173-400-040(8) ORCAA Rule 7.5	Prohibits installation or use of any device or means to conceal or mask emissions of an air contaminant, which causes detriment to health, safety, or welfare of any person, or causes damage to property or business.	Applies generally to all air pollution sources
Fugitive Dust WAC 173-400-040(9)	The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions.	Applies to any activity that results in fugitive dust.
Excess Emissions Provisions WAC 173-400-107; WAC 173-400-108 ORCAA 8.7	Requires excess emissions be reported to the Agency as soon as possible and within 24 hours and establishes criteria qualifying excess emissions as unavoidable.	Applies generally to all air pollution sources

Attachments

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to
Record Keeping and Reporting. ORCAA Rule 8.11	Requires the following: 1. Maintenance of records on the nature and amounts of emissions and other related information as deemed necessary by ORCAA; 2. Reporting of emissions to ORCAA upon request.	Required of all facilities registered with ORCAA.
Particulate Standards for Combustion Units ORCAA Rule 8.3(a) WAC 173-400-050(1)	Prohibits emissions from any combustion unit in excess of 0.1 grain/dscf. EPA test methods from 40 CFR Part 60 Appendix A shall be used should demonstration of compliance be required.	Applies generally to all stationary combustion units that exhaust to the atmosphere.
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units <i>40 CFR Part 60, Subpart Dc</i>	Applies to commercial, industrial and small boilers (steam generating units) that commenced construction or were modified after June 9, 1989 and have a rated heat input greater than 10 million Btu/hr (MMBtu/hr) and less than 100 MMBtu/hr. Establishes standards for SO ₂ , PM, and opacity.	Boiler (EU1, EU2)
General Provisions <i>40 CFR Part 60, Subpart A</i>	All Part 60 affected sources (unless specifically excluded by an applicable NSPS) are subject to the general provisions in Subpart A.	Boiler (EU1, EU2)

OLYMPIA REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

**FORM 1- NOTICE OF CONSTRUCTION
TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE**

Form 1 Instructions:

1. Please complete all the fields below. **This NOC application is considered incomplete until signed.**
2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records (www.orcaa.org/forms).
3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

Business Name: <i>Hooquiam Plywood Products</i>		For ORCAA use only	
Mailing Address: <i>1000 Woodlawn Street</i>		File No: <i>243</i>	County No: <i>27</i>
Physical Address of Project or New Source: <i>1000 Woodlawn St. Hooquiam Wa</i>		Source No: <i>46</i>	Application No: <i>23 NOV 1615</i>
Billing Address: <i>1000 Woodlawn St. Hooquiam, Wa 98550</i>		Date Received: Received SEP 11 2023 ORCAA	
Project or Equipment to be installed/established: <i>Boiler - Burnham 45 Series Boiler w/ Weishaupt Monarch Burner</i>			
Anticipated startup date: <i>03/01/2024</i>		Is facility currently registered with ORCAA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option: <input type="checkbox"/> SEPA was satisfied by _____ (government agency) on ___/___/___ (date) - Include a copy of the SEPA determination <input type="checkbox"/> SEPA threshold determination by _____ (government agency) is pending - Include a copy of the environmental checklist <input type="checkbox"/> ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist <input type="checkbox"/> This project is exempt from SEPA per _____ (WAC citation).			
Name of Owner of Business: <i>PAUL Willis / Willis Enterprises</i>		Agency Use Only	
Title: <i>OWNER</i>		CONDITIONALLY APPROVED FOR CONSTRUCTION ONLY IN ACCORDANCE WITH RCW 70A.15, WAC 173-400 ORCAA REGULATIONS SEE ATTACHED ADDENDUM FOR CONDITIONS OF APPROVAL	
Email: _____	Phone: <i>360-273-0728</i>		
Authorized Representative for Application (if different than owner): <i>Mark McFeely</i>			
Title: <i>General Manager</i>		DATE <i>2/2/2024</i> ORCAA	
Email: <i>Mark@willisent.com</i>	Phone: <i>360-533-2960</i>		
I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.			
Signature of Owner or Authorized Representative: (sign in Blue Ink) <i>X Mark McFeely</i>		Date: <i>7/12/2023</i>	
IMPORTANT: Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.			