



1600 South Second Street
 Mount Vernon, WA 98273-5202
 ph 360.428.1617
 fax 360.428.1620
 www.nwcleanair.org

Notice of Construction Worksheet (3/7/17)

NOC No. 1319a	Source: Metrie, Inc. 5575 Nordic Way Ferndale, WA 98248
Permit Engineer: Christos Christoforou	NOC Contact: Paul Douglas
NOC Received: 09/18/2019	NWCAA No.:

A. Project Description

With OAC 1319 Metrie constructed two wood drying kilns, each with a drying capacity of 80,000 bf. The maker is American Wood Dryers. Under OAC 1319, issued on December 20, 2019, Metrie was allowed to dry 0.636 MMBf of wood per year.

This application reviews Metrie's Tier II application to Ecology, to increase the annual throughput to 5.84 MMBf/yr.

B. New Source Review (NSR) Fees

NWCAA NSR fees have been assessed in accordance with the fee schedule effective 1/1/2019. The NSR fees assessed and amount paid are listed in the NSR Fee Worksheet posted on the OAC Whiteboard for this project.

C. Public Notice

In accordance with NWCAA Section 305.1, an internet notice that the NWCAA received this application was posted on the NWCAA website for a minimum of 15 consecutive days. The 15-day posting period ended on 10/03/2019, and no public comments or requests for additional public review were received.

However, a formal public involvement and notification (i.e., comment period) is required for this project because the project review meets the criteria set forth in NWCAA 305.2(A)(13) and (14):

(13) An increase in emissions of a Toxic Air Pollutant with impacts greater than the Acceptable Source Impact Level (ASIL) for that Toxic Air Pollutant as regulated under chapter 173-460 WAC. and

(14) A Notice of Construction Order of Approval with a second tier component as regulated under chapter 173-460 WAC.

The agency took the following action to meet the public involvement requirements prescribed under NWCAA 300.5.

- A public notice of the agency's preliminary determination to issue Draft OAC 1319a was posted to the NWCAA website on April 2, 2020, for a period of no less than 30

days ending on May 2, 2020. This posting included the public notice (Attachment 1), Draft OAC 1319a and the associated technical support worksheet.

- A public hearing was not scheduled because **no comments were received** during the public comment period.

D. SEPA Review

State Environmental Policy Act (SEPA) review under NWCAA Section 155 is addressed as follows.

There is an increase in emissions as a result of this project. The original project was considered non-significant under a DNS issued on 11/25/2019 by NWCAA. A SEPA Addendum to this original SEPA determination was issued on 03/31/2020 by the NWCAA documenting that the current project will not result in a significant environmental impact. This finding is supported by Ecology's Health Impact Assessment, which recommends approval of the project as well as the emission information documented in this application.

On 03/31/2020, the DNS and SEPA Checklist were sent to the following SEPA contacts.

WA Department of Ecology, separegister@ecy.wa.gov
City of Ferndale, Joriburnett@cityofferndale.org
Whatcom County Planning, mpersoni@whatcomcounty.us

The SEPA checklist and DNS issued by the NWCAA is included in the NOC file.

GHG Disclosure and Mitigation

There are no appreciable new greenhouse gas (GHG) emissions as a result of this project.

E. Permit History

This is the second permit for the two new kilns, to be issued as a result of Metrie petitioning the WA State department of Ecology for a Tier II review to increase throughput. Once OAC 1319a is issued, OAC 1319 will be rescinded.

There are two existing kilns and a natural gas boiler at the facility that are grandfathered and are operating without a NWCAA permit.

F. Basis for New Source Review Applicability

OAC 1319 allowed Metrie to dry 0.636 MMBf of wood per year, with VOC emissions of 0.9 tpy from the two kilns. According to Ecology's Tier II analysis, Metrie will now be allowed to dry 5.84 MMBf/yr of wood from the two kilns. This would result in VOC emissions of 8.3 tpy, or a net increase of 7.4 tpy of VOC. This is above the 2 tpy de minimis value of VOC in NWCAA 300.4(D).

See the worksheet for OAC 1319 for detailed emissions calculations.

The facility is also subject to permitting for certain HAPs that are also WA State toxics; this is discussed in Section H.

G. Criteria Air Pollutant Emissions and Impacts

This analysis was carried out with OAC 1319. The worksheet for that OAC, which includes the emission factors and all calculations for the PTE, is included as an appendix at the end of this document.

There are no criteria pollutants emitted at the facility that are subject to NSR. The potential to emit (as permitted) VOC is 8.3 tons per year, and that is below the PSD significant emission rate of 40 tpy, and below the modeling threshold, also 40 tpy.

No further analysis is carried out.

Heat will be supplied to the kilns using the existing boiler, a grandfathered source, that isn't modified as part of this project. Hence, no combustion emission increases are evaluated as part of this NSR review.

H. Toxic Air Pollutant Emissions and Impacts

In OAC 1319, Metrie was allowed to dry 0.636 MMBf/yr of wood. This limit was established after AERMOD modeling was carried out, and compliance with the ASIL for acetaldehyde and acrolein was ensured.

Under this project, Metrie requested an annual throughput of 5.84 MMBf/yr for both of their wood drying kilns. A summary of the PTE of TAP, together with data from WAC 173-460-150, are listed in Table H-1.

Table H-1 TAP emissions summary based on a throughput of 5.84 MMBf/yr

Pollutant	CAS Number	Potential Emissions (lb/averaging period)	SQER (lb/averaging period)	Averaging Period	Exceeds SQER?
Acetaldehyde	75-07-0	804.75	71	lb/year	Yes
Acrolein	107-02-8	0.07	0.00789	lb/24-hour	Yes
Formaldehyde	50-00-0	23.94	32	lb/year	No
Methanol	67-56-1	2.37	526	lb/24-hour	No

Based on information presented in Table H-1, modeling is required for acetaldehyde and acrolein.

The applicant submitted AIRMOD modeling for these two pollutants.

It was found that using the potential emissions for acetaldehyde and acrolein would cause an exceedance of their respective ASIL as shown in table H-2.

Table H-2 ASIL modeling results based on throughput of 5.84 MMBf/yr

Pollutant	Averaging Period	AERMOD Predicted Concentration (µg/m ³)	ASIL (µg/m ³)	Exceeds ASIL?
Acetaldehyde	Annual	2.58	0.37	Yes
Acrolein	24-hour	0.548	0.06	Yes

As provided in WAC 173-460-090, Metrie submitted a Health Impact Assessment report and petition requesting that Ecology perform a second tier review to determine a means of compliance with the ambient impact requirements.

Toxicologist Gary Palcisco at Ecology performed the Tier 2 review and provided NWCAA with Ecology’s determination on 3/26/2020, stating:

Ecology’s review indicates that increased toxic air pollutant (TAP) emissions from the proposed project could result in an increased cancer risk of less than one in one million (1 x 10⁻⁶) at the maximally impacted residential location. Ecology allows an increased risk of up to 10 in one million (1 x 10⁻⁵) under second tier toxics review.

Ecology also determined that Metrie’s proposed TAP emissions are not likely to contribute to short- and long-term respiratory hazards to residents or other receptors near the facility.

Based on the review of Metrie’s second tier petition, Ecology recommends approval of the proposed project because project-related health risks are permissible under WAC 173-460-090, and the project has satisfied all requirements of a second tier analysis. Northwest Clean Air Agency can incorporate our findings as part of the ambient air impacts analysis and begin the public comment period when appropriate.

A copy of the approval from Ecology is saved here: [MetrieTier2Ltr032620Final.pdf](#)

Ecology’s technical support document for the Tier 2 review is saved here: [Metrie2ndTierReview032620.pdf](#)

I. Prevention of Significant Deterioration (PSD) Program

Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability.

The facility is not an existing PSD major source.

This project is not over the PSD significance thresholds (including 75,000 tpy CO_{2e}).

J. Air Operating Permit (AOP) Program

The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria. The source is considered a “natural minor”.

K. NWCAA Compliance Database (Stratus)

The **NWCAA Stratus database has been updated** to include the emission unit(s) approved by this OAC.

L. Confidential Business Information (CBI)

The NOC application does not contain any information deemed by the applicant to be CBI.

M. Applicable/Inapplicable Regulations

Relevant sections of NWCAA, state and federal regulations as they relate to the approved emission units listed in the OAC.

Northwest Clean Air Agency

Section 451 establishes a visible emission standard of 20% opacity using Method 9A. The OAC includes a more stringent limit of 0% opacity using Method 9A.

State

WAC 173-400 contains requirements similar to those listed above. WAC 173-460 contains requirements for new sources of Toxic Air Pollutants.

Federal

none

N. Best Available Control Technology (BACT) Technology Review

This project is similar to the following projects permitted by NWCAA:

OAC 1297 Pacific Rim Tonewoods: one 2900 bf kiln used to dry maple and spruce wood. 0% opacity, 580,000 bf/yr limit, recordkeeping.

OAC 1295 Chemco: one 250,000 bf kiln used to cure resin for wood hardening process. VE limit 0% opacity, temperature limit & monitoring, TAP emission limitation.

OAC 1279 Skagit River Reman: four 25,000 bf kilns, VE limit 0% opacity, throughput limit, wood species restriction.

OAC 1257 Home Fire Prest Logs: 4.474 MMBtu/hr wood shaving rotary drum dryer. VE limit 5% opacity, fuel restriction, drying time, species & throughput limitation.

OAC 1048 Socco Forest Products: two 138,000 bf kilns, VE limit 10% opacity, computerized steam management system to control kiln temperatures to no more than 200 degrees F, species restriction, TAP emission limitation.

BACT for the kilns is keeping the temperature of the kiln below 200 degrees F.

O. Basis for OAC conditions

- (1) Limit for protecting ASIL
- (2) Recordkeeping
- (3)-(6) Temperature control inside kilns, less than 200 F
- (7) Visible Emissions limit (BACT)

P. Timeline and Review

Timeline		Date
NOC Received		
NOC Incompleteness Determined (due 30 days from receipt)		
NOC Completeness Determined		
Final Decision Due (due 60 days from complete)		
Final OAC issued		
Review		Date
NWCAA Engineering	Agata McIntyre	4/1/20
NWCAA Compliance	Matt Holmquist	11/25/2019
Source	Jay Swanson	12/20/2019



PUBLIC NOTICE

**NORTHWEST CLEAN AIR AGENCY
DRAFT ORDER OF APPROVAL TO CONSTRUCT**

NOTICE IS HEREBY given that the Northwest Clean Air Agency (NWCAA) will take action and seeks comments on a draft permit, known as an Order of Approval to Construct (OAC), for the following facility:

**Metrie, Inc.
5575 Nordic Way
Ferndale, WA 98248**

Project Description: The permit will authorize Metrie to expand operation of two existing lumber drying kilns up to 5.84 million board feet total for the two kilns per year. Each kiln has a capacity of 80 thousand board feet per charge. Air quality modeling and a Health Impact Assessment (HIA) were performed to review impacts to ambient air quality from this project.

NWCAA prepared a draft permit (OAC 1319a) that will limit emissions of regulated air contaminants. The preliminary determination by NWCAA is that the project satisfies the requirement for using best available control technology (BACT) for regulated air contaminants, including air toxics, and complies with all applicable local, state and federal regulations established pursuant to Washington and Federal Clean Air Acts.

Because of the emissions of acetaldehyde and acrolein, this project required air quality modeling and a HIA review by a toxicologist at the Washington Department of Ecology's (Ecology). After review, Ecology determined that the project is permissible if constructed and operated as permitted.

Public Review: Interested parties may view the draft permit and associated technical support documents on the NWCAA's website <http://nwcleanairwa.gov/public-notices/>.

The NWCAA will accept comments and/or requests for a hearing until the close of business (4:30 p.m.) **November 15, 2019.** A public hearing will not be held unless one is requested.

Final Determination: The NWCAA will send copies of the final determination on the proposed project to all persons who submit comments and have provided a mailing address. The final determination will also be available for review at the NWCAA.

Appealing Decisions: Within 30 calendar days following the NWCAA's final determination on this matter, any person may petition the Washington State Pollution Control Hearings Board (PCHB) to review any condition of that decision (Chapter 371-08 WAC, and Chapter 43.21B RCW). Please see <http://www.eluho.wa.gov/Board/PCHB> for details regarding the appeal procedures.

For more information regarding this proposed project or NWCAA's preliminary permit determination, please call Christos Christoforou at 360-419-6839 or e-mail christosc@nwcleanairwa.gov.

Published October 14, 2019



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NOC No. 1319	Source: Metrie, Inc. 5575 Nordic Way Ferndale, WA 98248
Permit Engineer: Christos Christoforou	NOC Contact: Jay Swanson
NOC Received: 11/02/2018	NWCAA No.:

Q. Project Description

Metrie proposes to construct and operate two wood drying kilns, each with a drying capacity of 80,000 bf. The maker is American Wood Dryers.

According to Metrie's estimates, the maximum annual throughput would be 2.92 MMBf/year per kiln.

Steam for drying wood will be from an existing (grandfathered) 6.7 MMBtu/hr, Superior Apache natural gas-fired boiler.

Metrie currently operates two lumber drying kilns (grandfathered) with a total capacity of 5.11 MMBf/year.

R. New Source Review (NSR) Fees

NWCAA NSR fees have been assessed in accordance with the fee schedule effective 1/1/2019. The NSR fees assessed and amount paid are listed in the NSR Fee Worksheet posted on the OAC Whiteboard for this project.

S. Public Notice

In accordance with NWCAA Section 305.1, an internet notice that the NWCAA received this NOC application and/or OAC revision request was posted on the NWCAA website for a minimum of 15 consecutive days ending on 3/7/2019.

Formal public involvement and notification (i.e., comment period and/or hearing) is not required for this project because the project review does not meet any of the criteria set forth in NWCAA 305.2. Criteria requiring public notice includes, but is not limited to, a project that exceeds a PSD threshold (e.g. 40 tpy NOx, 100 tpy CO, 15 tpy PM₁₀), includes an -091 synthetic minor limit, has a TAP that exceeds the ASIL, has significant public interest, or a project that a public comment period has been requested by an individual during the period that the NOC was posted on the NWCAA website.

T. SEPA Review

State Environmental Policy Act (SEPA) review under NWCAA Section 155 is addressed as follows.

The NWCAA is the SEPA lead agency for this project. The applicant submitted a SEPA checklist that was signed on 11/22/2019. On 11/25/2019, the NWCAA issued a DNS/MDNS for this project. On 11/25/2019, the DNS and SEPA Checklist were sent to the following SEPA contacts.

WA Department of Ecology, separegister@ecy.wa.gov
City of Ferndale, Joriburnett@cityofferndale.org
Whatcom County Planning, mpersoni@whatcomcounty.us

The SEPA checklist and DNS issued by the NWCAA is included in the NOC file.

GHG Disclosure and Mitigation

There are no appreciable new greenhouse gas (GHG) emissions as a result of this project.

U. Permit History

This is the first permit for the two new kilns. Metrie has also petitioned the WA State department of Ecology for a Tier II permit to increase throughput for the two kilns. See more comments under Section F.

There are two existing kilns and a natural gas boiler at the facility that are grandfathered and are operating without a permit.

V. Basis for New Source Review Applicability

Emission factors for drying wood were submitted by the applicant and are accepted by NWCAA. They are listed in Table F-1.

Table F-1 shows the PTE for each kiln. Since the two kilns are identical, they have the same PTE of 4.16 tons of VOC per year each. This is above the 2 tons per year VOC de minimis limit listed in NWCAA 300.4(D)(6).

The facility is also subject to permitting for certain HAP; this is discussed in Section H.



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Table F-1 Emission factors and PTE for kilns 3 and 4

Kiln 3

Potential Emissions - Criteria Pollutants

Parameter	Capacity ^[1]		Units	Max Kiln Temperature (°F)	Operating Hours
	Monthly ^[2]	Yearly ^[3]			
Throughput	243,333	2,920,000	bd-ft	180	8,760
	2,920		Mbf/yr ^[4]		
	0.333		Mbf/hr ^[5]		

Species	Emission Factors (lb/Mbf)		PTE (lb/hr) ^[8]		PTE (ton/yr) ^[10]	
	PM ^[6]	VOC ^[7]	PM ^[9]	VOC	PM	VOC
Douglas Fir	0.02	1.16	0.007	0.39	0.03	1.69
Engelmann Spruce	-	0.18	-	0.06	-	0.26
Larch	-	1.16	-	0.39	-	1.69
Lodgepole Pine	-	1.53	-	0.51	-	2.23
Ponderosa Pine	ND	2.35	ND	0.78	ND	3.42
Western hemlock	0.05	0.53	0.017	0.18	0.073	0.77
Western Red Cedar	-	0.36	-	0.12	-	0.53
Western White Pine	-	2.85	-	0.95	-	4.16
White Fir	-	0.84	-	0.28	-	1.22
Maximum PTE	0.05	2.85	0.02	0.95	0.07	4.16

Notes:

- [1] Capacity Based on Kiln manufacture
- [2] Calculation: Monthly Capacity = Yearly Capacity / 12 months
- [3] Maximum Yearly throughput (bd-ft) = 80000 bd-ft (Kiln Rated Capacity) * 365 Days per year / 10 day (Kiln Drying Time)
- [4] Calculation: (Mbf/hr) = (Mbf/year) / Operating Hours
- [5] Calculation: (Mbf/yr) = Throughput (bd-ft) / 1000
- [6] Emission Factor based on Oregon Department of Environmental Quality AQ-EF02 Emission Factors
- [7] Emission Factors based on VOC and HAP are from "EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012".
- [8] Calculation: PTE (lb/hr) = Kiln Throughput (Mbf/hr) x Emission Factor (lb/Mbf)
- [9] Assume total PM is PM₁₀ and PM_{2.5}
- [10] PTE (tons/yr) = Kiln Throughput (Mbf/hr) x Emission Factor (lb/Mbf) x 8760 hr/yr / 2000 lbs

Mbf = Thousand board feet
 bd-ft = board feet
 Mbf/yr = Thousand board feet per year
 Mbf/hr = Thousand board feet per hour
 Kiln Charge Time = Length of load for drying

Kiln 4

Potential Emissions - Criteria Pollutants

Parameter	Capacity ^[1]		Units	Max Kiln Temperature (°F)	Operating Hours
	Monthly ^[2]	Yearly ^[3]			
Throughput	243,333	2,920,000	bd-ft	180	8,760
	2,920		Mbf/yr ^[4]		
	0.333		Mbf/hr ^[5]		

Species	Emission Factors (lb/Mbf)		PTE (lb/hr) ^[8]		PTE (ton/yr) ^[10]	
	PM ^[6]	VOC ^[7]	PM ^[9]	VOC	PM	VOC
Douglas Fir	0.02	1.16	0.007	0.39	0.03	1.69
Engelmann Spruce	-	0.18	-	0.06	-	0.26
Larch	-	1.16	-	0.39	-	1.69
Lodgepole Pine	-	1.53	-	0.51	-	2.23
Ponderosa Pine	ND	2.35	ND	0.78	ND	3.42
Western hemlock	0.05	0.53	0.017	0.18	0.073	0.77
Western Red Cedar	-	0.36	-	0.12	-	0.53
Western White Pine	-	2.85	-	0.95	-	4.16
White Fir	-	0.84	-	0.28	-	1.22
Maximum PTE	0.05	2.85	0.02	0.95	0.07	4.16

Notes:

- [1] Capacity Based on Kiln manufacture
- [2] Calculation: Monthly Capacity = Yearly Capacity / 12 months
- [3] Maximum Yearly throughput (bd-ft) = 80000 bd-ft (Kiln Rated Capacity) * 365 Days per year / 10 day (Kiln Drying Time)
- [4] Calculation: (Mbf/hr) = (Mbf/year) / Operating Hours
- [5] Calculation: (Mbf/yr) = Throughput (bd-ft) / 1000
- [6] Emission Factor based on Oregon Department of Environmental Quality AQ-EF02 Emission Factors
- [7] Emission Factors based on VOC and HAP are from "EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012".
- [8] Calculation: PTE (lb/hr) = Kiln Throughput (Mbf/hr) x Emission Factor (lb/Mbf)
- [9] Assume total PM is PM₁₀ and PM_{2.5}
- [10] PTE (tons/yr) = Kiln Throughput (Mbf/hr) x Emission Factor (lb/Mbf) x 8760 hr/yr / 2000 lbs

Mbf = Thousand board feet
 bd-ft = board feet
 Mbf/yr = Thousand board feet per year
 Mbf/hr = Thousand board feet per hour
 Kiln Charge Time = Length of load for drying



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W. Criteria Air Pollutant Emissions and Impacts

There are no criteria pollutants emitted at the facility that are subject to NSR. The potential to emit VOC is 8.3 tons per year, and that is below the PSD significant emission rate of 40 tpy, and below the modeling threshold, also 40 tpy.

As permitted, the facility will be allowed a throughput of 0.636 MMBf/year, as described in Section H. As permitted, VOC emissions would be 0.9 tpy.

No further analysis is carried out.

X. Toxic Air Pollutant Emissions and Impacts

Emission factors of TAP for drying wood were submitted by the applicant and are accepted by NWCAA. They are listed in Table H-3.

A summary of the PTE of TAP, together with respective data from WAC 173-460, are listed in Table H-1 below.

Table H-1 TAP emissions summary

Pollutant	CAS Number	Potential Emissions (lb/averaging period)	SQER (lb/averaging period)	Averaging Period	Exceeds SQER?
Acetaldehyde	75-07-0	804.75	71	lb/year	Yes
Acrolein	107-02-8	0.07	0.00789	lb/24-hour	Yes
Formaldehyde	50-00-0	23.94	32	lb/year	No
Methanol	67-56-1	2.37	526	lb/24-hour	No

Based on information presented in Table H-1, modeling is required for acetaldehyde and acrolein.

The applicant submitted AIRMUD modeling for these two pollutants. The methodology is described in the application.

It was found that using the potential emissions for acetaldehyde and acrolein would cause an exceedance of their respective ASIL as shown in table H-2.

Table H-2 ASIL modeling results

Pollutant	Averaging Period	AERMUD Predicted Concentration (µg/m³)	ASIL (µg/m³)	Exceeds ASIL?
Acetaldehyde	Annual	2.58	0.37	Yes
Acrolein	24-hour	0.548	0.06	Yes

The applicant used modeling to demonstrate that a throughput of 0.318 MMBf/yr for each kiln would show emissions below the ASIL for acetaldehyde and acrolein.



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Table H-3 Emission factors and PTE of TAP

Potential Emissions - HAPs

Species	Emission Factors (lb/Mbf) ^[1]				
	Acetaldehyde	Acrolein	Formaldehyde	Methanol	Propionaldehyde
Douglas Fir	6.8E-02	1.1E-03	1.9E-03	6.9E-02	7.0E-04
Engelmann Spruce	3.6E-02	1.0E-03	1.3E-03	2.5E-02	7.0E-04
Larch	6.8E-02	1.1E-03	1.9E-03	6.9E-02	7.0E-04
Lodgepole Pine	4.2E-02	4.5E-03	4.1E-03	6.3E-02	3.2E-03
Ponderosa Pine	4.2E-02	4.5E-03	3.4E-03	7.4E-02	3.2E-03
Western hemlock	1.4E-01	2.6E-03	1.6E-03	1.5E-01	1.8E-03
Western Red Cedar	1.4E-01	2.6E-03	3.4E-03	1.5E-01	1.8E-03
Western White Pine	4.2E-02	4.5E-03	3.4E-03	7.4E-02	3.2E-03
White Fir	5.5E-02	2.6E-03	3.4E-03	1.5E-01	1.8E-03
Maximum Emission Factor	1.4E-01	4.5E-03	4.1E-03	1.5E-01	3.2E-03

Species	Pollutant PTE (lb/yr) ^[2]				
	Acetaldehyde	Acrolein	Formaldehyde	Methanol	Propionaldehyde
Douglas Fir	199.1	3.2	5.5	201.5	2.0
Engelmann Spruce	105.1	2.9	3.8	73.0	2.0
Larch	199.1	3.2	5.5	201.5	2.0
Lodgepole Pine	122.6	13.1	12.0	183.4	9.3
Ponderosa Pine	122.6	13.1	9.9	216.1	9.3
Western hemlock	402.4	7.6	4.7	433.3	5.3
Western Red Cedar	402.4	7.6	9.9	433.3	5.3
Western White Pine	122.6	13.1	9.9	216.1	9.3
White Fir	160.6	7.6	9.9	432.2	5.3
Maximum PTE	402.4	13.1	12.0	433.3	9.3

Notes:

[1] EFs based on VOC and HAP are from "EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012; </=200F".

[2] PTE (lb/yr) = Kiln Throughput (Mbf/hr) x Emission Factor (lb/Mbf) x 8760 hr/yr



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This limit of 0.636 MMBf/yr is only slightly larger than a limit based on the SQER. For example, the limit for Pacific Rim Tonewoods, OAC 1297, was 0.58 MMBf/yr.

Y. Prevention of Significant Deterioration (PSD) Program

Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability.

The facility is not an existing PSD major source.

This project is not over the PSD significance thresholds (including 75,000 tpy CO_{2e}).

Z. Air Operating Permit (AOP) Program

The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria. The source is considered a "**natural minor**".

AA. NWCAA Compliance Database (Stratus)

The **NWCAA Stratus database has been updated** to include the emission unit(s) approved by this OAC.

BB. Confidential Business Information (CBI)

The NOC application does not contain any information deemed by the applicant to be CBI.

CC. Applicable/Inapplicable Regulations

Relevant sections of NWCAA, state and federal regulations as they relate to the approved emission units listed in the OAC.

Northwest Clean Air Agency

Section 451 establishes a visible emission standard of 20% opacity using Method 9A. The OAC includes a more stringent limit of 0% opacity using Method 9A.

State

WAC 173-400 contains requirements similar to those listed above. WAC 173-460 contains requirements for new sources of Toxic Air Pollutants.

Federal

none

DD. Best Available Control Technology (BACT) Technology Review

This project is similar to the following projects permitted by NWCAA:

OAC 1297 Pacific Rim Tonewoods: one 2900 bf kiln used to dry maple and spruce wood. 0% opacity, 580,000 bf/yr limit, recordkeeping.

OAC 1295 Chemco: one 250,000 bf kiln used to cure resin for wood hardening process. VE limit 0% opacity, temperature limit & monitoring, TAP emission limitation.

OAC 1279 Skagit River Reman: four 25,000 bf kilns, VE limit 0% opacity, throughput limit, wood species restriction.

OAC 1257 Home Fire Prest Logs: 4.474 MMBtu/hr wood shaving rotary drum dryer. VE limit 5% opacity, fuel restriction, drying time, species & throughput limitation.

OAC 1048 Socco Forest Products: two 138,000 bf kilns, VE limit 10% opacity, computerized steam management system to control kiln temperatures to no more than 200 degrees F, species restriction, TAP emission limitation.

BACT for the kilns is keeping the temperature of the kiln below 200 degrees F.

EE. Basis for OAC conditions

- (1) Limit for protecting ASIL
- (2) Recordkeeping
- (3)-(6) Temperature control inside kilns, less than 200 F
- (7) Visible Emissions limit (BACT)
- (8) Startup Notification

FF. Timeline and Review

Timeline		Date
NOC Received		2/20/2019
NOC Incompleteness Determined (due 30 days from receipt)		2/22/2019
NOC Completeness Determined		
Final Decision Due (due 60 days from complete)		
Final OAC issued		
Review		Date
NWCAA Engineering	Dan Mahar	11/25/2019
NWCAA Compliance	Matt Holmquist	11/25/2019
Source	Jay Swanson	12/20/2019