Notice of Construction Application for New Source Review

SDS Lumber Company
123 Industrial Road
Bingen, Washington

for
SDS Lumber Company

March 25, 2025

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GeoEngineers

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File No. 008945-002-03
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Prepared for:

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Bingen, Washington 98605

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Acronyms and Abbreviations

µm	micrometer or microns
acfm	actual cubic feet per minute
AOP	Air Operating Permit
ADMRT	Air Dispersion Modeling and Risk Tool
AHI	Acute Hazard Index
AQIA	Air Quality Impact Analysis
ASILs	Acceptable Source Impact Levels
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
bf	board feet
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CHI	Chronic Hazard Index
CO	Carbon monoxide
CO_2	Carbon dioxide
DEQ	Oregon Department of Environmental Quality
DNS	Determination of Non-significance
dscfm	dry standard cubic feet per minute
E	east
e	exponent
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
g	grams
GACT	Generally Available Control Technology
gr	grains

HAP	Hazardous air pollutant
HARP	Hot Spots Analysis and Reporting Program
HIA	Health Impact Assessment LAER Lowest Achievable Emissions Rate
LAER	Lowest Achievable Emissions Rate
MACT	Maximum Achievable Control Technology
MEIR	Maximum Exposed Individual Resident
MEIS	Maximum Exposed Individual Sensitive Receptor
MEIW	Maximum Exposed Individual Offsite Worker
N	north
NAAQS	National Ambient Air Quality Standards
NAD	North American Datum
NA-NSR	Non-attainment New Source Review program
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOC	Notice of Construction
NOx	Oxides of nitrogen
NSPS	New Source Performance Standards
NSR	New Source Review
OEHHA	Office of Environmental Health Hazard Assessment
PAE	Projected Actual Emissions
PCWP	Plywood and Composite Wood Products
PM	Particulate matter
PM10	Particulate matter with an aerodynamic diameter of 10 µm or less
PM2.5	Particulate matter with an aerodynamic diameter of 2.5 µm or less
PMI	Point of Maximum Impact
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	Potential to emit

RACT	Reasonably Achievable Control Technology
RBLC	RACT/BACT/LAER Clearinghouse
RCW	Revised Code of Washington
SDS	SDS Lumber Company
SEPA	State Environmental Policy Act
SER	Significant Emission Rate
SIP	State Implementation Plan
SO2	Sulfur dioxide
SQERs	Small Quantity Emission Rates
TAC	Toxic Air Contaminant
TAP	Toxic Air Pollutant
TBACT	Best Available Control Technology for Toxics
tph	tons per hour
TPM	Total Particulate Matter
tpy	tons per year
TSD	Technical Support Document
UTM	Universal Transverse Mercator
VOC	Volatile organic compound
WA	Washington (state)
WAC	Washington Administrative Code

1.0 Introduction

GeoEngineers, Inc. (GeoEngineers) is submitting this Notice of Construction (NOC) application on behalf of SDS Lumber Company (SDS) for a minor New Source Review (NSR) of its existing lumber drying Kilns Number 3 (#3) and Number 4 (#4). Kilns #3 and #4 were originally permitted under Approval Order #23AQ-C264, issued on October 10, 2023. The proposed project involves modifying the two lumber drying kilns, which are used to dry dimensional lumber. The operational changes, described below, will take effect upon approval of this application.

SDS owns and operates a lumber and plywood manufacturing facility (Facility) in Klickitat County, Washington. Emissions of regulated air pollutants from the Facility fall under the jurisdiction of the Washington State Department of Ecology (Ecology). The Facility is classified as a major source under Title V of the federal Clean Air Act. It is authorized to operate under Air Operating Permit (AOP) No. 20AQ-C241 First Revision (Issued: March 30, 2021).

This NOC application seeks approval to modify the operations of Kilns #3 and #4. This report outlines the proposed project, including emission calculations, regulatory applicability, state Best Available Control Technology (BACT) requirements, and an analysis of toxic air pollutants (TAPs). Ecology required application forms for the proposed project are included in Appendix A.

1.1 PROJECT CONTACT INFORMATION

The primary contact is Vernon Buchanan, Environmental Compliance Manager.

SDS Lumber Company
123 Industrial Road
Bingen, WA 98605
Email: VernB@sdslumber.com
Phone: 509.493.2155

1.2 SITE DESCRIPTION

The Facility is located at 123 Industrial Road in Bingen, Washington. The Facility is located on Klickitat County Assessor's Parcel No 03113000000300. The site is in downtown Bingen, approximately 1 mile east of the Hood River Bridge, between State Hwy 14 and the Columbia River. The site is generally flat and abuts the river. The Site Map, (Figure 1 of the New Stud Mill Kilns Project NOC Application prepared by SLR, dated December 2022 (Approval Order #23AQ-C264)), shows an aerial view of the site and the location of the proposed Project.

1.3 FACILITY DESCRIPTION

SDS manufactures plywood and dimensional lumber at the Facility. Logs entering the facility are first debarked and then sent to the various product manufacturing areas. For plywood production, debarked logs are soaked in steam vats to soften them prior to being peeled in the veneer lathes. Veneers are then dried in one of two single chamber veneer dryers. Steam required for steam vats and veneer dryers is provided from the hog fuel boiler. Some dried veneer is coated with glue and pressed into plywood. The

rough plywood edges are trimmed to size. Some of the plywood is sanded. Trimmings are hammer milled and then combined with sander residue. These residues are then size-speciated in a cyclone with the finer material being exhausted through a baghouse. Larger material is generally used as hog fuel.

For dimensional lumber production, the stud mills saw/cut debarked logs into dimensional sizes. Some lumber from the stud mills is dried in one of the four lumber drying kilns. All four kilns are heated using steam from the Facility's hog fuel boiler. Both green/undried lumber that bypasses the kilns and the dried lumber are surfaced (planed) and sawed in the planer mill to achieve the desired final dimensions.

Steam, required for heating the veneer dryers, lumber drying kilns, and steam vats, is produced via the hog fuel boiler. Hog fuel consists of bark, wood waste from multiple plant processes, plywood trim and sander dust from the plywood plant, and shavings from the stud mill. The boiler uses natural gas at startup and shutdown, and during emergency operations. In addition to process heating, steam is also used for electricity production. The Facility has three steam powered turbines used to produce electrical power for use within the Facility and for sale to electric utilities.

The proposed project will affect only the dimensional lumber production line. Therefore, the following sections of this application discuss only the equipment and processes involved in the manufacturing of dimensional lumber. The process flow diagram in Figure 1 of this application illustrates the dimensional lumber manufacturing process and the affected emission units.

1.4 SEPA REVIEW

A review of environmental impacts of new lumber drying Kilns #3 and #4 (originally proposed under NOC application #23AQ-C264) was performed in 2023, as required by the State Environmental Policy Act (SEPA) in Chapter 43.21C of Revised Code of Washington (RCW). The City of Bingen served as the lead agency for that project and issued a Determination of Non-significance (DNS) for Kilns #3 and #4 on August 30, 2023.

2.0 Project Description

The proposed project involves modifying the operations of existing Kilns #3 and #4 to increase their throughput as well as provide greater flexibility in the proportion or relative amount of wood species SDS can dry.

2.1 EQUIPMENT DESCRIPTION

Kilns #3 and #4 are indirect-fired lumber drying kilns. The heat for drying lumber in these kilns is provided by the steam generated by the hog fuel boiler. Kiln #3 is an 88-foot long single-track kiln. Kiln #4 is an 88-foot long double-track kiln. Kiln #3 has a capacity of 120,000 board-feet lumber per charge or batch. Kiln #4 has a capacity of 242,000 board-feet lumber per charge or batch. Both Kilns #3 and #4 operate 24 hours per day and 365 days per year, except for during periodic maintenance outages.

2.2 CURRENT PERMIT CONDITIONS

Kilns #3 and #4 are currently permitted as emission units #P4-7 and #P4-8, respectively. Per condition number 2.a. of the NOC Approval Order # 23AQ-C264, Kilns #3 and #4 are currently permitted to

treat/process 12.3 million board-feet of lumber per year and 24.7 million board-feet of lumber per year, respectively.

Per condition number 2.b. of the NOC Approval Order # 23AQ-C264, Kilns #3 and #4 are both restricted to processing only Douglas Fir and White Fir wood species, required to process at least 80 percent Douglas Fir on a cumulative basis, and limited to a drying temperature of 200 degrees Fahrenheit (°F).

2.3 PROPOSED PROJECT

SDS is proposing to increase the annual throughput for Kiln #3 to 25 million board-feet of lumber per year and Kiln #4 to 55 million board-feet of lumber per year. Each kiln will still be limited by its respective lumber throughput proposed above, but the company seeks to lift the restriction on the proportion or percentage of Douglas Fir and White Fir that can be processed. Additionally, SDS proposes lowering the kilns' dry-bulb temperature set point from 200°F to 180°F. The proposed changes are operational in nature, with no physical changes to the existing equipment.

2.4 AFFECTED SOURCES

The proposed operational changes at Kilns #3 and #4 will result in an increase in the throughput/utilization of other equipment/process units that are upstream and downstream of these kilns on the dimensional lumber production line and the hog fuel boiler. The emissions units affected by the proposed project are summarized in Table 1.

TABLE 1. SOURCES AFFETCED BY THE PROPOSED PROJECT

EMISSION UNIT ID	EMISSION UNIT NAME/DESCRIPTION	ABATEMENT EQUIPMENT	CURRENT PERMIT LIMITS OR DESIGN CAPACITY
P2-1	Hog Fuel Boiler	Dry ESP	80,000 lb of steam/hr
P4-1A	Stud Mill #1	Baghouse - One baghouse abates both stud mills and other processes in the building	90,000,000 board feet lumber/year
P4-1	Stud Mill #2		150,000,000 board feet lumber/year
P4-3A	Planer Mill and Saws	Planer Baghouse	5.26 tpy PM/PM10/PM2.5; 70,000 acfm; 0.002 gr/dscf outlet grain loading
P4-3B	Planer Truck Load House	Planer Truck Baghouse	0.56 tpy PM/PM10/PM2.5; 3,000 acfm; 0.005 gr/dscf outlet grain loading
P5-1	Debarkers and End Saws	None	1,450,000 tons of logs/year
P5-6	V-drum Chipper	Cyclone	1700 acfm; 0.03gr/dscf outlet grain loading
P5-9	End Saw Chipper	Cyclone	2700 acfm; 0.03gr/dscf outlet grain loading
P5-12	Stud Mill Sizer/Shaker	Chip Cyclone #1	7600 acfm; 0.03gr/dscf outlet grain loading
P5-13	Stud Mill Sizer/Shaker	Chip Cyclone #2	7600 acfm; 0.03gr/dscf outlet grain loading
P5-14	Stud Mill Sizer/Shaker	Sawdust Cyclone	2700 acfm; 0.03gr/dscf outlet grain loading

All the affected sources are currently permitted to operate 8,760 hours per year.

As noted above, there will be an increase in the throughput/utilization of the above-listed sources due to the proposed project. However, the post-project throughput/utilization is projected to remain below their current permit limits and/or capacities. Therefore, no increase in permit limits of these affected sources is required to accommodate the increase in the throughput at Kilns #3 and #4. In other words, the increase in the throughput/utilization of the affected sources, listed in Table 1, does not constitute a modification of these sources. Therefore, these affected sources are not subject to minor or major NSR.

3.0 Emissions Estimates

Table 2 of the Statement of Basis for AOP No. 20AQ-C241 First Revision, shows that potential emissions of carbon monoxide (CO) from the Facility are above 250 tons per year (tpy). Therefore, the Facility is considered a major source under the major NSR programs (i.e., the Non-attainment New Source Review (NA-NSR) program under 40 Code of Federal Regulations (CFR) §51.165 and Prevention of Significant Deterioration (PSD) program under 40 CFR §52.21).

Any proposed project at the Facility is required to undergo a major NSR applicability analysis in order to determine whether the project constitutes a major modification and thereby triggers major NSR for the NSR pollutants. Per 40 CFR §51.165(a)(1)(v)(A) and §52.21(b)(2)(i), major modification means any physical change in or change in the method of operation of a major stationary source that would result in: (Step 1) a significant emissions increase of a regulated NSR pollutant; and (Step 2) a significant net emissions increase of that pollutant from the major stationary source.

For Step 1 of the major NSR applicability analysis, emission increases from the following categories need to be evaluated:

1. New emission units or activities that constitute the proposed project.
2. Existing emission units or activities that will be physically or operationally modified as part of the proposed project.
3. Emission units or activities affected or debottlenecked by the proposed project/change but are not physically or operationally modified.
4. Any past or future projects/changes that are related to the proposed project/change.

According to 40 CFR §51.165(a)(1)(vii)(A) and §52.21(b)(7)(i), existing Kilns #3 and #4 are considered new emissions units because they have existed for less than 2 years from the date they were first operated.

There are no other modified sources in the proposed project. SDS has confirmed that there are no past or future projects that are related to the proposed project.

Therefore, for the purposes of this application, emission increases were calculated for categories **1** (Kilns #3 and #4) and **3** (affected sources listed in Table 1), as discussed below.

3.1 KILNS #3 AND #4 EMISSIONS

Operation of Kilns #3 and Kiln #4 generates emissions of particulate matter (PM), particulate matter with an aerodynamic diameter of 10 micrometers (µm) or less (PM10), particulate matter with an aerodynamic

diameter of 2.5 µm or less (PM2.5), volatile organic compounds (VOCs), and TAPs. The TAPs typically released from indirect fired lumber drying kilns include acetaldehyde, acrolein, formaldehyde, methanol, and propionaldehyde. These TAPs are also listed as hazardous air pollutants (HAPs) in Section 112 of the federal Clean Air Act.

It must be noted that TAPs and HAPs are not regulated NSR pollutants for the purposes of major NSR programs (e.g., PSD and NA-NSR). However, TAPs are regulated under Washington State's toxics NSR program (Controls for new sources of toxic air pollutants) codified in Washington Administrative Code (WAC) 173-460. Since Kilns #3 and #4 are being modified, TAP emissions from these kilns are subject to WAC 173-460. Therefore, the emissions of TAPs are included for discussion in this section.

Pursuant to 40 CFR §51.165(a)(1)(xxxv)(C) and §52.21(b)(48)(iii), the baseline actual emissions for new emission units for purposes of determining the emissions increase shall equal zero. According to 40 CFR §51.165(a)(2)(ii)(D) and 40 CFR §52.21(a)(2)(iv)(D), the emissions increase of a new emission unit is equal to the unit's post-project potential to emit (PTE). Therefore, this section discusses the methodology used to calculate the post-project PTE of Kilns #3 and #4 and summarizes those emissions.

Lumber drying in Kilns #3 and #4 are batch processes. The time required to dry each batch or charge varies with the type of wood species dried. Table 2 summarizes the hourly, 24-hour, and annual capacities of Kilns #3 and #4 for each wood species, which are estimated based on the charge or batch capacity of the kiln, the respective drying time of the wood species, and the assumption that there is no downtime between two batches.

Pursuant to WAC 173-400-030(76), hourly and 24-hour post-project PTE were estimated using the hourly and 24-hour capacities of the kilns for each wood species (specified in Table 2) and are based on the assumption that each batch or charge in the kilns consists of only one wood species (either Douglas Fir or White Fir).

TABLE 2. CAPACITY OF KILNS #3 AND #4 BY WOOD SPECIES TREATED

EMISSION UNIT NAME	BATCH OR CHARGE CAPACITY (bf lumber/ charge)	WOOD SPECIES	WOOD SPECIES DRYING TIME (hours per charge)	HOURLY CAPACITY BY WOOD SPECIES (1000 bf lumber/ hour)	24-HOUR CAPACITY BY WOOD SPECIES (1000 bf lumber/ 24-hours)	NUMBER OF CHARGES/ YEAR	ANNUAL CAPACITY BY WOOD SPECIES (bf lumber/ year)
Kiln 3	120,000	Douglas Fir	34	3.5	84.7	258	30,917,647
	120,000	White Fir	75	1.6	38.4	117	14,016,000
Kiln 4	242,000	Douglas Fir	34	7.1	170.8	258	62,350,588
	242,000	White Fir	75	3.2	77.4	117	28,265,600

It must be noted that White Fir takes approximately twice as long to dry as Douglas Fir. Therefore, SDS would never reach the proposed annual throughput of 25 million board-feet of lumber per year, if 20 percent or more of the wood species dried in Kiln #3 is White Fir. Similarly, SDS will never reach the proposed annual throughput of 55 million board-feet of lumber per year in Kiln#4, if 12 percent or more of the wood species dried in Kiln #4 is White Fir. Therefore, in accordance with WAC 173-400-030(76), annual

PTE for Kilns #3 and #4 were calculated using the lower of the proposed annual throughput and the annual capacity of the kiln for the specific wood species. For example, if 100 percent of the wood treated annually in Kiln #3 was Douglas Fir, then Kiln #3 will be able to dry up to the proposed annual throughput of 25 million board-feet per year, as limited by an enforceable permit condition. Therefore, the annual post-project PTE for 100 percent Douglas Fir was estimated for a throughput of 25 million board-feet per year. In contrast, if 100 percent of the wood dried annually in Kiln #3 was White Fir, then only 14 million board-feet per year would be able to be dried, as indicated in Table 2. Therefore, the annual post-project PTE for 100 percent White Fir was estimated for a throughput of 14 million board-feet per year.

Emission factors to calculate PM, PM10, and PM2.5 emissions were obtained from the *Oregon Department of Environmental Quality (DEQ) Emission Factors - Wood Products (AQ-EF02) for Lumber Dry Kilns*[1]. A PM emission factor for drying White Fir is not available. Therefore, the Hemlock wood species emission factor was used for White Fir because both species are non-resinous softwood species. GeoEngineers conservatively assumed that emissions of PM10 and PM2.5 are equal to emissions of PM.

Emission factors used to calculate VOC and TAP emissions were obtained from *EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, January 2021*[2].

Since SDS seeks to lift the restriction on the proportion or percentage of Douglas Fir and White Fir that can be processed, a sensitivity analysis of the total project/Step 1 emissions increase and health impacts was conducted at various proportions and throughputs of Douglas Fir and White Fir for Kilns #3 and #4. The purpose of the sensitivity analysis was to identify the proportion and annual throughput of Douglas Fir and White Fir at which maximum total project/Step 1 emissions increase, and maximum health impacts would occur and to ensure that these maximum total project/Step 1 emissions increase and maximum health impacts remain below the applicable regulatory thresholds. The detailed sensitivity analysis is provided in Appendix C. Summary tables provided in this application narrative show only the emissions for the proportion and annual throughput of Douglas Fir and White Fir at which the maximum total project/Step 1 emissions increase and maximum health impacts would occur.

Table 3 summarizes the proportion and annual throughput of Douglas Fir and White Fir and annual post-project PTE/emissions increase for PM, PM10, and PM2.5 for Kilns #3 and #4 at which the maximum total project/Step 1 emissions increase occurs for PM, PM10, and PM2.5.

Similarly, Table 4 summarizes the proportion and annual throughput of Douglas Fir and White Fir and annual post-project PTE or emissions increase for VOC for Kilns #3 and #4 at which the maximum total project/Step 1 emissions increase occurs for VOC.

Table 5 summarizes the hourly and 24-hour emissions for TAPs from Kilns #3 and #4.

Detailed emission calculations for Kilns #3 and #4 at various proportions of Douglas Fir and White fir are provided in Appendix C.

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[1] https://www.oregon.gov/deq/FilterPermitsDocs/AQ-EF02.pdf

[2] https://www.epa.gov/system/files/documents/2021-07/epa-region-10-lumber-drying-ef-january-2021.pdf

TABLE 3. ANNUAL THROUGHPUT AND POST-PROJECT PTE FOR PM, PM10, AND PM2.5

ANNUAL THROUGHPUT AND PTE AT MAXIMUM STEP 1 EMISSIONS INCREASE	KILN #3	KILN #4
Proposed Annual Throughput (1000 bf lumber/year)	25,000	55,000
Percent Of Proposed Throughput By Wood Species		
Douglas Fir	29%	29%
White Fir	43%	38%
Annual Throughput by Wood Species (1000 bf lumber/year)		
Douglas Fir	7,250	15,950
White Fir	10,729	21,035
Total Annual Throughput (1000 bf lumber/year)	17,979	36,985
Annual Emissions by Wood Species (tpy)		
PM/PM10/PM2.5 (Douglas Fir)	0.07	0.16
PM/PM10/PM2.5 (White Fir)	0.27	0.53
Total PM/PM10/PM2.5 Emissions	0.34	0.69

TABLE 4. ANNUAL THROUGHPUT AND POST-PROJECT PTE FOR VOC

ANNUAL THROUGHPUT AND PTE AT MAXIMUM STEP 1 EMISSIONS INCREASE	KILN #3	KILN #4
Proposed Annual Throughput (1000 bf lumber/year)	25,000	55,000
Percent Of Proposed Throughput By Wood Species		
Douglas Fir	100%	100%
White Fir	0%	0%
Annual Throughput by Wood Species (1000 bf lumber/year)		
Douglas Fir	25,000	55,000
White Fir	0	0
Total Annual Throughput (1000 bf lumber/year)	25,000	55,000
Annual Emissions by Wood Species (tpy)		
VOC (Douglas Fir)	10.71	23.56
VOC (White Fir)	0.00	0.00
Total VOC Emissions	10.71	23.56

TABLE 5. POST-PROJECT PTE FOR TAPS FOR KILNS #3 AND #4

TAPS /HAPS	EMISSION FACTOR 180°F (lb/1000 bf lumber)	HOURLY EMISSIONS (lb/hour)		24-HOUR EMISSIONS (lb/24-hours)	
		KILN #3	KILN #4	KILN #3	KILN #4
Acetaldehyde (Douglas Fir)	0.028	0.0971	0.1957	2.33	4.70
Acetaldehyde (White Fir)	0.055	0.0880	0.1775	2.11	4.26
Acetaldehyde (Max Hourly and Max 24- Hour)		**0.0971**	**0.1957**	**2.33**	**4.70**
Acrolein (Douglas Fir)	0.0005	0.0018	0.0036	0.04	0.09
Acrolein (White Fir)	0.0009	0.0014	0.0029	0.03	0.07
Acrolein (Max Hourly and Max 24- Hour)		**0.0018**	**0.0036**	**0.04**	**0.09**
Formaldehyde (Douglas Fir)	0.0012	0.0044	0.0088	0.11	0.21
Formaldehyde (White Fir)	0.0012	0.0019	0.0037	0.04	0.09
Formaldehyde (Max Hourly and Max 24- Hour)		**0.0044**	**0.0088**	**0.11**	**0.21**
Methanol (Douglas Fir)	0.0443	0.1564	0.3153	3.75	7.57
Methanol (White Fir)	0.1034	0.1654	0.3336	3.97	8.01
Methanol (Max Hourly and Max 24- Hour)		**0.1654**	**0.3336**	**3.97**	**8.01**
Propionaldehyde (Douglas Fir)	0.0003	0.0011	0.0021	0.03	0.05
Propionaldehyde (White Fir)	0.0003	0.0005	0.0010	0.01	0.02
Propionaldehyde (Max Hourly and Max 24- Hour)		**0.0011**	**0.0021**	**0.03**	**0.05**

3.2 AFFECTED SOURCES' EMISSIONS

As previously discussed in Section 2.4 above, the affected sources listed in Table 1 are not being modified in the proposed project. Therefore, pursuant to WAC 173-460-040, they are not subject to NSR for TAPs. Therefore, emissions of TAPs from the affected/unmodified sources are not discussed in this application.

This section discusses only the emissions of regulated NSR pollutants from affected sources for the purposes of major NSR applicability determination.

According to 40 CFR §51.165(a)(2)(ii)(C) and §52.21(a)(2)(iv)(C), the emissions increase of an existing emission unit is equal to the difference between the unit's projected actual emissions (PAE) and the baseline actual emissions (BAE).

Projected Actual Emissions (PAE)

According to 40 CFR §51.165(a)(1)(xxviii)(A) and §52.21(b)(41)(i), PAE for an existing emission unit is calculated as the maximum annual emission rate (in tons per year), that the unit is expected to emit during one of the following periods:

- In any one year (12-month period) of the five years following the date the unit resumes regular operation after the project; or

- In any one year of the 10 years following that date, if the project involves increasing the emission unit's design capacity or its PTE of that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.

In accordance with 40 CFR §51.165(a)(1)(xxviii)(B) and §52.21(b)(41)(ii), PAE of the affected sources are based on the projected annual throughput and/or operating time of those sources, which were determined based on the historical operational data and the company's highest projected business activity in the next five years.

Baseline Actual Emissions (BAE)

According to 40 CFR §51.165(a)(1)(xxxv)(B) and §52.21(b)(48)(ii), BAE for an existing emission unit is the average emission rate (in tons per year), at which the emission unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete NOC or major NSR application is received by Ecology, whichever is earlier,

SDS is proposing to use the 24-month period from January 2023 through December 2024 to evaluate baseline actual emissions. This 24-month period is representative of normal facility operations.

Table 6 lists the baseline actual and projected actual annual throughput and operating times for each affected source that were used to calculate the BAE, PAE, and emissions increase.

TABLE 6. BASELINE ACTUAL AND PROJECTED ACTUAL THROUGHPUT AND OPERATING TIME

ANNUAL THROUGHPUT AND OPERATING TIME	BASELINE ACTUAL (JAN 2023-DEC 2024)	POST-PROJECT PROJECTED ACTUAL	UNITS
Stud Mills # 1 and 2 (Combined)	102,625,914	163,000,000	bf lumber/year
Stud Mills # 1 and 2 (Combined) Baghouse	4,680	4,680	hours/year
Wood boiler (Facility-wide, all uses)	290,684,316	402,392,382	lb steam/year
Debarker (Only for the dimensional lumber line)	273,669	434,667	tons log/year
Planer Mill: Planer, Saws, Chipper, and Fractionator	2,800	2,800	hours/year
Planer Truck Load House[1]	2,800	2,800	hours/year
V-drum Chipper	2,080	2,080	hours/year
End Saw Chipper[2]	4,680	4,680	hours/year
Stud Mill Sizer/Shaker[2]	4,680	4,680	hours/year
Stud Mill Sizer/Shaker[2]	4,680	4,680	hours/year

1. Planer truck load house operates concurrently with Planer Mill.
2. End saw chipper and stud mill sizer/shaker operate concurrently with Stud Mills #1 and #2.

The operations of the stud mills and the planer mill are semi-independent from the kilns' operation because lumber is not directly fed into the kilns from the stud mills and then into the planer mill from the kilns (not a continuous processing line). Lumber is typically staged in between these processing steps. The kilns are heated 24-hours per day, seven days per week, but the operating times for the stud mills and the planer

mill are adjusted depending on the inventory of the lumber waiting to be dried at the kilns. Currently, the stud mills and planer mills are being operated below their hourly throughput capacity and can accommodate the throughput increase at the kilns by increasing hourly throughput rather than the total operating time. Due to all these factors, the operating time of the stud mills and the planer mill is not strictly tied to the throughput and the operating time of the kilns. Therefore, the operating times of stud mills and the planer mill after the project will remain the same as their current operating times. Since the abatement devices operate simultaneously with the sources they abate, the operating times of these abatement devices are the same as the operating times of the stud mills and the planer mill.

Both PAE and BAE for each affected source were calculated using the methodology and emission factors that have been used in previous NOC applications and AOP renewal applications for SDS and that have been approved by Ecology to permit these sources. Detailed emission calculations are provided in Appendix C.

3.3 STEP 1 OR TOTAL PROJECT EMISSIONS INCREASE

The total project emissions increase/Step 1 emissions increase for regulated NSR pollutants was estimated by adding the emissions increase for each new emission unit (Kilns #3 and #4) and affected emission unit (listed in Table 1).

Table 7 summarizes the maximum of the total project/Step 1 emissions increase for each regulated NSR pollutant at various proportions of Douglas Fir and White fir dried in Kilns #3 and #4.

TABLE 7. MAXIMUM STEP 1 OR TOTAL PROJECT EMISSIONS INCREASE

POLLUTANTS	EMISSIONS INCREASE (tons/year)							SIGNIFICANT EMISSION RATE (SER, tons/yr)	PERCENT OF SER
	KILN #3	KILN #4	WOOD-FIRED BOILER	DEBARKER AND END SAW	STUD MILLS #1 AND #2	PLANER MILL AND DOWN-STREAM UNITS	TOTAL PROJECT EMISSIONS INCREASE ABOVE 2023-2024 BAE		
PM[1]	0.34	0.69	10.40	1.93	0.61	0.00	13.97	25	56%
PM10[1]	0.34	0.69	7.80	0.97	0.34	0.00	10.13	15	68%
PM2.5[1]	0.34	0.69	6.76	0.39	0.29	0.00	8.47	10	85%
VOC[2]	10.71	23.56	1.69		3.20		39.16	40	98%
CO[1]			74.84				74.84	100	75%
SO_2[1]			2.49				2.49	40	6%
NOx[1]			19.33				19.33	40	48%
Total CO_2e[1]			20,584				20,584	75,000	27%

1. Maximum Step 1/project emissions increase for the pollutant occurs when the proportion of Douglas Fir treated in Kilns #3 and #4 is 29 percent of the proposed throughput limit for each kiln and the remaining feedstock consists of White Fir up to the capacity of the kiln or proposed annual throughput limit, whichever is lower.
2. Maximum Step 1/project emissions increase for the pollutant occurs when the proportion of Douglas Fir treated is 100 percent of the proposed annual throughput limit.

4.0 Applicable Regulations

This section describes the applicable regulations triggered by the proposed project. The applicability determination conducted in this analysis is pursuant to federal NSR, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPs), PSD, and Washington State regulations codified in the WAC.

4.1 FEDERAL REGULATIONS

4.1.1 40 CFR Part 51.165 Non-Attainment New Source Review

According to 40 CFR §51.165(a)(1)(iv)(A), the Facility is a major stationary source under the NA-NSR program because its potential emissions of PM10, VOC, CO, and oxides of nitrogen (NOx) exceed 100 tpy. However, the facility is not located in a non-attainment area for any of these pollutants and therefore, the proposed project is not subject major NA-NSR.

4.1.2 40 CFR Part 52.21 Prevention of Significant Deterioration

According to 40 CFR §52.21(b)(1)(i)(B), the Facility is considered a major stationary source under the PSD program, because the potential emissions of CO from the Facility exceed 250 tpy. The Facility is located in an attainment area for all NSR pollutants. Therefore, any proposed project at the Facility is required to

undergo a PSD applicability analysis to determine whether the project constitutes a major modification and therefore triggers PSD review for the NSR pollutants.

In order for the proposed project to be considered a major modification at the Facility, the total project or Step 1 emissions increase of a regulated NSR pollutant must be significant (i.e., equal or exceed the respective significant emission rate (SER) specified in 40 CFR §52.21(b)(23)(i)) and the net/Step 2 emissions increase of that pollutant must also be significant (i.e., equal or exceed the respective SER specified in 40 CFR §52.21(b)(23)(i)). If the project/Step 1 increase is not significant for any regulated NSR pollutant, then the net/Step 2 emissions increase analysis is not required for that pollutant. As shown in Table 7, the project/Step 1 emissions increase is not significant for any regulated NSR pollutant. Therefore, in accordance with 40 CFR §52.21(a)(2)(iv)(A), the proposed project is not a major modification and is not subject to federal PSD permitting.

Pursuant to 40 CFR §52.21(r)(6), there are additional requirements for projects where a reasonable possibility exists that a significant emissions increase would occur. According to 40 CFR §52.21(r)(6)(vi), a "reasonable possibility" occurs when a projected actual emissions increase of at least 50 percent of the SER is calculated. As shown in Table 7 above, the projected actual emissions increase for PM, PM10, PM2.5, VOC, and CO is greater than 50 percent of their respective SER. Therefore, the additional requirements of 40 CFR §52.21(r)(6) will apply for PM, PM10, PM2.5, VOC, and CO emissions.

According to 40 CFR §52.21(r)(6)(iii), SDS must monitor the emissions of any regulated NSR pollutants where a reasonable possibility for a significant emissions increase may occur. Therefore, SDS must calculate and maintain a record of their annual emissions, in tpy on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. This requirement is specified in the current NOC 23AQ-C264 condition 5.d for Kilns#3 and #4.

NOC 23AQ-C264 condition 5.d. currently requires SDS to calculate and report the annual emissions of CO, PM2.5, PM10, and VOCs from Kilns #3, Kiln #4, and the affected emission units for a period of 5 years, starting with the operation of Kiln #3 and Kiln #4. SDS is prepared to continue calculating and reporting the annual emissions of PM2.5, PM10, VOCs, and CO (in tons per year) on a calendar-year basis for a period of five years, beginning with the resumption of regular operations after the proposed changes. The 5-year reporting period will reset the proposed operational changes. The applicant is also prepared to include PM in its monitoring and reporting plan.

4.1.3 New Source Performance Standards (NSPS)

NSPS are air pollution control standards for some specific stationary source categories, promulgated by the EPA under 40 CFR §60. None of the NSPS regulations apply to Kiln #3 or Kiln #4.

4.1.4 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

NESHAPs have been established in 40 CFR §63 to control the emissions of HAPs from major stationary sources of HAPs and stationary area sources of HAPs. The standards under 40 CFR §63 that apply to major stationary sources of HAPs are referred to as Maximum Achievable Control Technology (MACT) standards. For area sources of HAPs these standards referred to as Generally Available Control Technology (GACT) standards. GACT standards are less stringent than MACT.

40 CFR §63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products (PCWP) – Also known as "Plywood MACT".

This subpart applies to PCWP manufacturing facilities located at a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAPs at a rate of 25 tons or more per year.

The Facility's PTE of HAPs exceeds these major source thresholds. However, the Facility has taken voluntary limits to avoid triggering the Plywood MACT via the Synthetic Minor Order No. 07AQ-C061, which limits the facility-wide HAP emissions to below the major source thresholds. The proposed project would not change the synthetic minor source status and SDS will continue to comply with the voluntary limits on HAPs. Therefore, Subpart DDDD is not applicable to Kiln #3 or Kiln #4.

4.1.5 40 CFR Part 70 Title V Operating Permit Program

The Facility is subject to the Title V Air Operating Permit regulation under 40 CFR §70 because its potential emissions exceed 100 tpy for PM, PM10, VOC, CO, and NOx, and 100,000 tpy for CO_2 equivalent.

The Facility is currently authorized to operate under AOP No. 20AQ-C241 First Revision (Issued: March 30, 2021), which is set to expire on 7/21/2025. In compliance with condition #2.21 of the AOP, a renewal application was received by Ecology on 12/04/2023.

It is SDS's understanding that Ecology has paused the review of the AOP renewal application until this NOC application is submitted to and approved by Ecology to allow for a comprehensive review of the whole facility and all its current permits and to incorporate this latest NOC into the final AOP.

4.2 WASHINGTON STATE REGULATIONS

Washinton state regulations are codified in the WAC. The state air quality regulations applicable to this application are codified in Chapters 173-400 and 173-460 of the WAC.

4.2.1 WAC 173-400-040: General Standards for Maximum Emissions

WAC 173-400-040(2): Visible Emissions.

Pursuant to this standard, no person shall cause or allow the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity except when the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed twenty percent.

The proposed BACT measures will ensure compliance with this standard.

WAC 173-400-040(3): Fallout.

Pursuant to this standard, no person shall cause or allow the emission of particulate matter 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 is deposited.

The proposed BACT measures will ensure compliance with this standard.

WAC 173-400-040(4): Fugitive emissions.

This standard regulates fugitive emissions from any emissions unit engaging in materials handling, construction, demolition, or other operations. Kilns #3 and #4 are not sources of fugitive emissions. Therefore, this standard does not apply to the project.

WAC 173-400-040(5): Odors.

Pursuant to this standard, any person who shall cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.

Kilns #3 and #4 are expected to comply with this standard.

WAC 173-400-040(6): Emissions detrimental to persons or property.

Pursuant to this standard, no person shall cause or allow 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.

As shown above, the emissions increase from the proposed project is below the emissions threshold, specified in WAC 173-400-030(30). The Tier 2 health impact assessment (HIA), discussed below, shows that the proposed project's impacts will be below all health impact thresholds. Therefore, the proposed project is expected to comply with this standard.

WAC 173-400-040(8): Concealment and masking.

Pursuant to this standard, no person shall cause or allow the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of this chapter.

WAC 173-400-040(9): Fugitive Dust.

a. 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.

b. The owner or operator of any existing source or activity that generates fugitive dust that has been identified as a significant contributor to a PM-10 or PM-2.5 nonattainment area is required to use reasonably available control technology to control emissions. Significance will be determined by the criteria found in WAC 173-400-133(4).

Kilns #3 and #4 are not sources of fugitive dust emissions. Therefore, this standard does not apply to the project.

4.2.2 WAC 173-400-060: Emission Standards for General Process Units

This standard prohibits emissions of PM from any general process unit operation in excess of 0.1 grain per dry standard cubic feet (gr/dscf) of exhaust gas. Using an estimated maximum hourly PM emission rate of 0.08 lb/hour and an exhaust flow rate of 9,522 dscf per minute (dscfm) for Kiln #3, the exhaust grain loading for Kiln #3 was estimated to be 0.001 gr/dscf. Similarly, using an estimated maximum hourly PM emission rate of 0.16 lb/hour and an exhaust flow rate of 19,043 dscfm for Kiln #4, the exhaust grain loading for Kiln #4 was estimated to be 0.001 gr/dscf. Therefore, both kilns are expected to comply with this standard.

4.2.3 WAC 173-400-110: New Source Review (NSR) for Sources and Portable Sources

The regulation specifies conditions that trigger the minor NSR requirements for stationary and portable sources.

According to WAC 173-400-030(51), the proposed project is considered a modification because the proposed increase in throughput above the currently permitted throughput levels is an operational change that will result in an increase in emissions above the currently permitted emission levels. Throughput limits were imposed as surrogates for emission limits while permitting Kilns #3 and #4 under NOC 23AQ-C264. Therefore, increase in throughput limits indicates an increase in emission limits, provided all other factors affecting emissions from the sources remain constant.

According to WAC 173-400-110(3)(b), NSR is triggered for any modification to an existing source that requires an increase in an emission unit or activity specific emission limit. Therefore, NSR is triggered for Kilns #3 and #4. However, WAC 173-400-110(5)(a)(ii) allows for exemption from NSR for modification to an existing emissions unit that increases the unit's actual emissions by less than each of the threshold levels listed in Table 110(5) Exemption Levels of this subsection. Since the emissions increase from Kilns #3 and #4 due to the proposed modification, respectively, exceeds the exemption levels for VOC and TAPs, specified in WAC 173-400-110, Table 110(5), the kilns are subject to minor NSR, pursuant to WAC 173-400-110(5)(a)(ii).

4.2.4 WAC 173-400-111: Processing Notice of Construction Applications for Sources, Stationary Sources and Portable Sources

This rule describes the NSR permitting process. This NOC application is being filed to fulfill the requirements of this rule.

4.2.5 WAC 173-400-113: New Sources in Attainment or Unclassifiable Areas—Review For Compliance With Regulations

This rule sets forth requirements for new or modified sources in areas that are in attainment or unclassified with regard to ambient air quality standards. As noted above, the Facility is located in an attainment area for all criteria air pollutants. The requirements set forth in this rule include:

1. Deployment of Best Available Control Technology (BACT) on new and modified sources.
2. Conducting ambient air quality impact analysis (AQIA), using dispersion modeling, to determine whether the proposed project will cause or contribute to a violation of any National Ambient Air Quality Standard (NAAQS).

BACT:

Washington NSR regulations do not have an emissions threshold for triggering BACT. All new and modified sources requiring an air permit are automatically subject to BACT. BACT is required for all air contaminants that will increase as a result of the proposed project. Therefore, PM, PM10, PM2.5, and VOC emissions from Kilns #3 and #4 are subject to the BACT requirement.

As noted in the initial NOC application and Ecology's Technical Support Document for 23AQ-C264 (TSD) for Kilns #3 and #4, add-on control technology is not technologically and economically feasible for these kilns because of the high moisture content of the exhaust stream and the low pollutant concentrations.

A search of the Environmental Protection Agency's (EPA's) Reasonably Achievable Control Technology (RACT)/BACT/Lowest Achievable Emission Rate (LAER) Clearinghouse (RBLC) was performed for determinations issued for lumber drying kilns since January 2000. The search results indicate that the lumber drying kilns do not have any add-on controls and BACT is identified as proper maintenance and operation.

According to the TSD, EPA Region 10 had performed an exhaustive review of BACT for steam-heated batch-type lumber drying kilns. Prior to issuing the Approval Order #23AQ-C264 for Kilns #3 and #4, Ecology had reviewed the four BACT determinations issued by EPA Region 10 between 2019 and 2022. According to the TSD, both Ecology and EPA Region 10 had concluded that no add-on controls were feasible for these kilns. Therefore, SDS is proposing the same BACT in this application as proposed and approved by Ecology in the initial NOC application for Kilns #3 and #4. Therefore, Kilns #3 and #4 will continue to use up-to-date software and technology to control various functions of the lumber drying process through integrated personal computer and programmable logic controller (PC/PLC) controls. The temperature and fan speed are variable and programmable, allowing for optimum efficiency and operation.

AQIA:

Dispersion modeling for criteria air pollutants is not triggered because the emissions increase from the proposed modification is below the emissions thresholds specified in WAC 173-400-030(30). Therefore, the emissions from the proposed project are not expected to contribute to NAAQS exceedances.

4.2.6 WAC 173-400-171: Public Notice and Opportunity for Public Comment

This project is subject to a mandatory 30-day public comment period per WAC 173-400-171(3)(b), for increases in emissions of TAPs above the acceptable source impact levels (ASILs), listed under WAC 173-460-150.

4.2.7 WAC 173-401: Operating Permit Regulation

This chapter establishes the elements of a comprehensive Washington State air operating program consistent with the requirements of Title V under the Federal Clean Air Act. The Facility is subject to this program because it is a major source per WAC 173-401-200(19)(b) as its potential emissions exceed 100 tpy for PM, PM10, VOC, CO, and NOx, and 100,000 tpy for CO_2 equivalent.

Pursuant to this regulation, the Facility is currently authorized to operate under AOP No. 20AQ-C241 First Revision (Issued: March 30, 2021), which is set to expire on 7/21/2025. In compliance with WAC 173-401-710, a renewal application was received by Ecology on 12/04/2023.

It is SDS's understanding that Ecology has paused the review of the AOP renewal application until this NOC application is submitted to and approved by Ecology to allow for a comprehensive review of the whole facility and all its current permits and to incorporate this latest NOC into the final AOP.

4.2.8 WAC 173-460: Controls for New Sources of Toxic Air Pollutants

This regulation establishes NSR requirements for new or modified sources of TAPs. This regulation establishes the following requirements:

1. TAP emission quantification.
2. Deployment of BACT for toxics (TBACT) on new and modified sources.
3. Human health and safety protection demonstration via Health Impact Assessment (HIA).

TAP emissions from Kilns #3 and #4 were quantified as discussed and summarized in Section 3.1, above.

TBACT:

Washington's NSR regulations for TAPs do not have an emissions threshold for triggering TBACT. All new and modified sources of TAPs that require an air permit (where uncontrolled emissions are greater than the de minimis emissions threshold for any TAP emitted by the source) are automatically subject to the TBACT requirement.

TAPs released from Kilns #3 and #4 are speciated constituents of VOC emissions. Therefore, the technologies that will control VOC emissions will also control TAPs. Therefore, BACT discussed in Section 4.2.5, is also determined to be TBACT for Kilns #3 and #4.

HIA:

In the initial NOC application #23AQ-C264 for Kilns #3 and #4, an ambient air impact assessment using dispersion modeling was conducted for Tier 1 review of acetaldehyde, acrolein, and formaldehyde.

The Tier 1 review showed that all TAPs, except acetaldehyde, were below their respective ASILs. Therefore, a Tier 2 HIA was performed for acetaldehyde.

As required by WAC 173-460-080 and WAC 173-460-090, both the HIA protocol, including dispersion modeling, and the subsequent Tier 1 and Tier 2 reviews conducted in accordance with that protocol, were submitted to and approved by Ecology, prior to the issuance of Approval Order #23AQ-C264.

The dispersion modeling that was required for the Tier 1 and Tier 2 reviews in the original application (# 23AQ-C264) was conducted using a surrogate pollutant with a unit emission rate of 1 g/s. Pollutant concentrations for Tier 1 and Tier 2 reviews were estimated in the post-processing step, by scaling the modeled concentration at the unit emissions rate by the actual emission rate. No other stack/release parameters (such as stack locations, diameters, release height, flow rate, and temperature) will change as a result of the proposed project. The site layout has also not changed, nor will it change from what was considered in the original dispersion modeling. Therefore, the dispersion model output for the proposed project will essentially be the same as that for the original application, because the model inputs are not changing. Therefore, dispersion modeling was not conducted for the proposed project. The HIA protocol and dispersion model output previously reviewed and approved by Ecology for NSR/NOC application #23AQ-C264 was used to perform the Tier 1 and Tier 2 reviews for the proposed project. Prior to submitting this application, GeoEngineers met with Ecology on February 27, 2025 to discuss using this approach of referencing the HIA protocol and reusing the dispersion modeling output from NSR/NOC application #23AQ-C264. Ecology reviewed the proposed approach and approved it on March 4, 2025.

Table 8 summarizes the total emissions of TAPs from Kilns#3 and #4 and, pursuant to WAC 173-460-080, compares them to the respective ASILs for the purposes of Tier 1 review. Emission rates shown in Table 8 are the maximum of the total emissions at various proportions of Douglas Fir and White Fir.

TABLE 8. TIER 1 REVIEW OF THE MAXIMUM TOTAL EMISSION RATES FOR KILNS # 3 AND #4

COMMON NAME	AVERAGING PERIOD	ASIL (µg/m³)	MAXIMUM MODEL CONCENTRATION AT UNIT EMISSION RATE (XOQ, µg/m³ per g/s)[1]	POLLUTANT EMISSION RATE (lb/AVERAGING PERIOD)	POLLUTANT EMISSION RATE FOR AVERAGING PERIOD (g/s)	POLLUTANT SPECIFIC MODEL CONCENTRATION (µg/m³)	EXCEEDS ASIL?
Acetaldehyde[2]	year	3.7e-01	45.13	2490	3.58e-02	1.62e+00	Yes
Acrolein	24-hr	3.5e-01	258.98	0.13	6.71e-04	1.74e-01	No
Formaldehyde[3]	year	1.7e-01	45.13	99.20	1.43e-03	6.44e-02	No
Methanol	24-hr	2.0e+04	258.98	11.98	6.29e-02	1.63e+01	No
Propionaldehyde	24-hr	8.0e+00	258.98	0.08	4.02e-04	1.04e-01	No

1. Maximum Model Concentration at Unit Emission Rate (XOQ, µg/m³ per g/s) was obtained from Table 3-3 of Air Dispersion Modeling & Health Impact Assessment Report, December 2022, prepared by SLR and submitted with initial NOC Application (#23AQ-C264) for Kilns #3 and #4.
2. Maximum annual acetaldehyde emissions occur when the proportion of Douglas Fir dried in Kilns #3 and #4 is 80 percent of the proposed throughput limit for each kiln and the remaining feedstock is composed of White Fir up to the capacity of the kiln or proposed annual throughput limit, whichever is lower.
3. Maximum annual formaldehyde emissions occur when the proportion of Douglas Fir dried is 100 percent of the proposed annual throughput limit.

As shown in Table 8, acetaldehyde exceeds the ASIL. Therefore, a Tier 2 review is required for acetaldehyde.

To estimate the health impacts for Tier 2 review in the post-processing step in the original application (# 23AQ-C264), the dispersion model output files (containing the modeled concentration at unit emissions rate) and the actual emission rates were imported into the California Air Resources Board (CARB) Hot Spots Analysis and Reporting Program (HARP) Air Dispersion Modeling and Risk Assessment Tool (ADMRT). The ADMRT incorporates the Office of Environmental Health Hazard Assessment (OEHHA) Hot Spots guidance, as supplemented by the CARB and California Air Pollution Control Officers Association (CAPCOA) Risk Management Guidance for Stationary Sources of Air Toxics (RMP, Risk Management Policy).

For the proposed project, CARB's ADMRT was not used in the post-processing step to estimate the cancer risk, chronic hazard index (CHI), or acute hazard index (AHI). Rather, to allow for a sensitivity analysis of various proportions of Douglas Fir and White Fir, a spreadsheet tool was developed using the same OEHHA, CARB, and CAPCOA RMP guidance as used in ADMRT to estimate the health impacts.

For the proposed project, the cancer risk and CHIs were estimated in accordance with the RMP guidance using the annual emissions rates of acetaldehyde and the modeled "Period" averaging time concentration at the maximum exposed individual resident (MEIR), maximum exposed individual offsite worker (MEIW), and maximum exposed individual sensitive receptor (MEIS). For the proposed project, the AHI was estimated, in accordance with the RMP guidance, using the maximum hourly emission rate of acetaldehyde and modeled 1-hour averaging time concentration at the point of maximum impact (PMI).

Cancer risk, CHIs, and AHI at specified receptors are summarized in Table 9, below. Table 9 shows only the highest of the all the health impact values estimated for various proportions of Douglas Fir and White Fir.

The spreadsheet tool and health impact values estimated for various proportions and annual throughputs of Douglas Fir and White Fir are provided in Appendix C.

TABLE 9. TIER 2 HEALTH IMPACTS OF ACETALDEHYDE FROM KILNS #3 AND #4

MAXIMUM EXPOSED INDIVIDUAL RECEPTOR TYPE	LOCATION (UTM NAD 83 COORDINATES)	CANCER RISK (IN A MILLION)	CHRONIC HAZARD INDEX	ACUTE HAZARD INDEX
Resident	619010 m E, 5063687.50 m N	1.75	0.029	---
Work	618784.91 m E, 5063706.19 m N	0.40	0.002	---
Sensitive	618960 m E, 5064200 m N	0.28	0.005	---
Point of Maximum Impact	618703.53 m E, 5063730.39 m N	---	---	0.086

WAC 173-460-090(5) requires background concentration of TAPs to be included in Tier 2 review. Background concentration of acetaldehyde was obtained from EPA's AirToxScreen website[3]. The current AirToxScreen database provides modeled ambient air concentrations for 2020. Ambient air concentration of acetaldehyde for the census block (#530399503024064) where the MEIR is located, is 1.28 µg/m^3. Using the simplified method to calculate cancer risk presented and approved by Ecology in NOC application #23AQ-C264, the cancer risk associated with the ambient concentrations of acetaldehyde is:

Cancer Risk (per million) = Ambient Concentration (µg/m^3) x Unit Risk Factor [(µg/m^3)$^{-1}$] x 1e^{+06}

Cancer Risk (per million) = 1.28 µg/m^3 x 2.7e^{-06} (µg/m^3)$^{-1}$ x 1e^{+06}

Cancer Risk (per million) = 3.45

Maximum Cumulative Cancer Risk (per million) = Project + Background = 1.75 + 3.45 = 5.2

The chronic noncancer hazard index associated with estimated ambient concentration of acetaldehyde from the EPA AirToxScreen website can be calculated as:

CHI = Model Concentration (µg/m^3) ÷ Reference Concentration (µg/m^3)

CHI = 1.28 µg/m^3 ÷ 9 µg/m^3

CHI = 0.142

Maximum Cumulative CHI = Project + Background = 0.029 + 0.142 = 0.171

Per Ecology's Toxics Guidance4 and WAC 173-460, acceptable cancer risk associated with a project is defined as an increased cancer risk of no more than 10 per million and a noncancer hazard index of less

[3] https://gaftp.epa.gov/rtrmodeling_public/AirToxScreen/2020/Ambient%20Concentrations/

[4] Department of Ecology, State of Washington, Guidance Document, First, Second and Third Tier Review of Toxic Air Pollution Sources, September 2010. Publication Number: 08-02-025 (revised August 2015)

than one. Both the proposed project's health impacts, shown in Table 9, and the cumulative health impacts, including the background concentration of acetaldehyde, are below the acceptable levels.

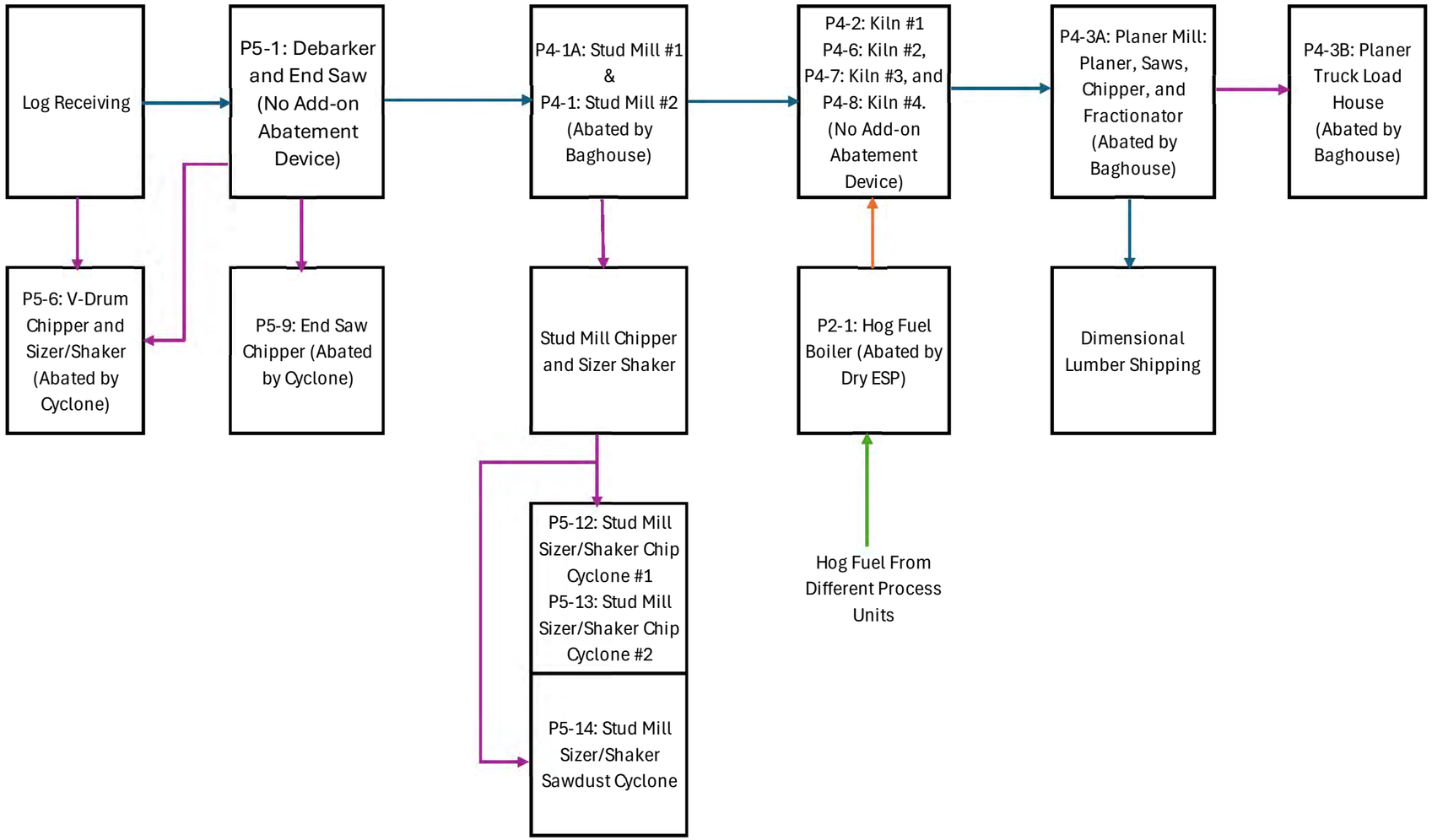
5.0 SEPA

As stated above, Kilns#3 and #4 have previously undergone SEPA environmental review through The City of Bingen. The proposed project will not result in expansion of the facility's footprint, nor will it increase the utilization of or have an impact on other environmental resources beyond what has been reviewed and approved through SEPA previously. The proposed throughput increases at Kilns #3 and #4 will be subsumed within the currently permitted facility-wide throughput envelope. Therefore, the proposed project is not expected to have any changes in the impact on environmental resources other than air. Therefore, a multiple-agency review of the proposed project is not needed. A new SEPA Environmental Checklist for the proposed project is included in Appendix B.

6.0 Fee

In accordance with WAC 173-455-120(2)(a), an initial filing fee of $1,904 will accompany this application for up to 16 hours of review. SDS understands that additional review fees will be assessed and invoiced at $119/hour beyond the initial 16 hours following Ecology's review, and that the application will not be considered complete until all permit application and review fees have been paid in full.

Figure



Legend

- Denotes Process and/or Process Unit
- Denotes Log or Lumber Flow
- Denotes Flow of Wood Chips, Sawdust, or Wood Dust Collected by Abatement Device
- Denotes Hog Fuel (Bark, Wood Chips, and Sawdust)
- Denotes Steam Flow

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Dimensional Lumber Manufacturing Process Flow Diagram

Notice of Construction Application for New Source Review
Bingen, Washington

GeoEngineers

Figure 1

Appendices

Appendix A

Application Forms

Notice of Construction Application

A notice of construction permit is required before installing a new source of air pollution or modifying an existing source of air pollution. This application applies to facilities in Ecology's jurisdiction. Submit this application for review of your project. For general information about completing the application, refer to Ecology Forms ECY 070-410a-g, "Instructions for Ecology's Notice of Construction Application."

Ecology offers up to two hours of free pre-application assistance. We encourage you to schedule a pre-application meeting with the contact person specified for the location of your proposal, below. If you use up your two hours of free pre-application assistance, we will continue to assist you after you submit Part 1 of the application and the application fee. You may schedule a meeting with us at any point in the process.

Upon completion of the application, please enclose a check for the initial fee and mail to:

Department of Ecology
Cashiering Unit
PO Box 47611
Olympia, WA 98504-7611

For Fiscal Office Use Only: 0299-3030404-B00-216--001--000404

Check the box for the location of your proposal. For assistance, call the appropriate office listed below:

Check box	Ecology Permitting Office	Contact
☑	**Chelan, Douglas, Kittitas, Klickitat, or Okanogan County** Ecology Central Regional Office (509) 575-2490	Lynnette Haller (509) 457-7126 lynnette.haller@ecy.wa.gov
☐	**Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla, or Whitman County** Ecology Eastern Regional Office (509) 329-3400	Karin Baldwin (509) 329-3452 karin.baldwin@ecy.wa.gov
☐	**San Juan County** Ecology Northwest Regional Office (206) 594-0000	David Adler (425) 649-7267 david.adler@ecy.wa.gov
☐	**For actions taken at Kraft and Sulfite Paper Mills and Aluminum Smelters Only** Ecology Industrial Section (360) 407-6900	James DeMay (360) 407-6868 james.demay@ecy.wa.gov
☐	**For actions taken on the US Department of Energy Hanford Reservation Only** Ecology Nuclear Waste Program (509) 372-7950	Lilyann Murphy (509) 372-7951 lilyann.murphy@ecy.wa.gov

Check the box below for the fee that applies to your application.

New project or equipment:

- [x] **$1,904: Basic project** initial fee covers up to 16 hours of review.
- [ ] **$12,614: Complex project** initial fee covers up to 106 hours of review.

Change to an existing permit or equipment:

- [ ] **$357: Administrative or simple change** initial fee covers up to 3 hours of review. Ecology may determine your change is complex during the completeness review of your application. If you project is complex, you must pay the additional xxx before we will continue working on your application
- [ ] **$1,190: Complex** change initial fee covers up to 10 hours of review
- [ ] **$350flat fee**: Replace or alter control technology equipment under WAC 173-400-114. Ecology will contact you if we determine your change belongs in another fee category. You must pay the fee associated with that category before we will continue working on your application.

Read each statement below, then check the box next to it to acknowledge that you agree.

- [x] The initial fee you submitted may not cover the cost of processing your application. Ecology will track the number of hours spent on your project. If the number of hours Ecology spends exceeds the hours included in your initial fee, Ecology will bill you $119 per hour for the extra time.
- [x] You must include all information requested by this application. Ecology may not process your application if it does not include all the information requested.
- [x] Submittal of this application allows Ecology staff to visit and inspect your facility.

Part 1: General Information

I. Project, Facility, and Company Information

1. Project Name: Kiln Operations Modification Project
2. Facility Name: SDS Lumber Company
3. Facility Street Address:
   123 Industrial Road, Bingen, Washington 98605
4. Facility Legal Description: TL1;TL6A,6B,6C,6C-1,7,8;TL12A, 12A-1, 12B, 12C, 12D, 12D-1;TL13, 13A, TL 14-ALL IN S2; IRR TRACTS-BINGEN 30-3*
5. Company Legal Name (if different from Facility Name):
   _____
6. Company Mailing Address (street, city, state, zip)
   P.O. Box 266 Bingen, Washington

II. Contact Information and Certification

1. Facility Contact Name (who will be onsite): Vernon Buchanan
2. Facility Contact Mailing Address (if different than Company Mailing Address:
   Same

3. Facility Contact Phone Number: (509) 493.2155
4. Facility Contact E-mail: VernB@sdslumber.com
5. Billing Contact Name (who should receive billing information):
   Shauna Dutton
6. Billing Contact Mailing Address (if different Company Mailing Address):

   Same

7. Billing contact Phone Number: (509) 493.2155
8. Billing Contact E-mail: shaunad@sdslumber.com
9. Consultant Name (optional – if 3rd party hired to complete application elements):
   Rob Ralstin
10. Consultant Organization/Company: GeoEngineers Inc.
11. Consultant Mailing Address (street, city, state, zip):
12. Consultant Phone Number: (425) 861.6006
13. Consultant E-mail: rralstin@geoengineers.com
14. Responsible Official Name and Title (who is responsible for project policy or decision making):
    Chris Childers; General Manager
15. Responsible Official Phone: (509) 493-2155
16. Responsible Official E-mail: chrisc@sdslumber.com
17. Responsible Official Certification and Signature:

    I certify that the information on this application is accurate and complete.

    Signature: _____ Date: 3-25-2025

Part 2: Technical Information

The Technical Information may be sent with this application form to the Cashiering Unit, or may be sent directly to the Ecology regional office with jurisdiction along with a copy of this application form.

For all sections, check the box next to each item as you complete it.

III. Project Description

- [x] Written narrative describing your proposed project.
- [x] Projected construction start and completion dates.
- [x] Operating schedule and production rates.
- [x] List of all major process equipment and manufacturer and maximum rated capacity.
- [x] Process flow diagram with all emission points identified.
- [x] Plan view site map.
- [x] Manufacturer specification sheets for major process equipment components
- [x] Manufacturer specification sheets for pollution control equipment.
- [x] Fuel specifications, including type, consumption (per hour and per year) and percent sulfur.

IV. State Environmental Policy Act (SEPA) Compliance

Check the appropriate box below.

- [ ] SEPA review is complete. Include a copy of the final SEPA checklist and SEPA determination (e.g., DNS, MDNS, and EIS) with your application.
- [x] SEPA review has not been conducted:
  - [ ] If review will be conducted by another agency, list the agency. You must provide a copy of the final SEPA checklist and SEPA determination before Ecology will issue your permit. Agency reviewing SEPA: _____
  - [x] If the review will be conducted by Ecology, fill out a SEPA checklist and submit it with your application. You can find a SEPA checklist online at https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-document-templates

V. Emissions Estimations of Criteria Pollutants

Does your project generate criteria air pollutant emissions? [x] **Yes** [ ] **No**

If yes, please proved the following information regarding your criteria emissions in the application.

- [x] The names of the criteria air pollutants emitted (i.e., NO_X, SO_2, CO, $PM_{2.5}$, PM_{10}, TSP, VOC, and Pb)
- [x] Potential emissions of criteria air pollutants in tons per hour, tons per day, and tons per year (include calculations)
- [x] If there will be any fugitive criteria pollutant emissions, clearly identify the pollutant and quantity

VI. Emissions Estimations of Toxic Air Pollutants

Does your project generate toxic air pollutant emissions? [x] **Yes** [ ] **No**

If yes, please provide the following information regarding your toxic air pollutant emissions in your application.

- [x] The names of the toxic air pollutants emitted (specified in WAC 173-460-150[1])
- [x] Potential emissions of toxic air pollutants in pounds per hour, pounds per day, and pounds per year (include calculations)
- [x] If there will be any fugitive toxic air pollutant emissions, clearly identify the pollutant and quantity

VII. Emission Standard Compliance

- [x] Provide a list of all applicable new source performance standards, national emission standards for hazardous air pollutants, national emission standards for hazardous air pollutants for source categories, and emission standards adopted under Chapter 70A.15 RCW.

Does your project comply with all applicable standards identified? [x] **Yes** [ ] **No**

VIII. Best Available Control Technology

- [x] Provide a complete evaluation of Best Available Control Technology (BACT) for your proposal.

IX. Ambient Air Impacts Analyses

Please provide the following:

- [x] Ambient air impacts analyses for Criteria Air Pollutants (including fugitive emissions)
- [x] Ambient air impacts analyses for Toxic Air Pollutants (including fugitive emissions)
- [x] Discharge point data for each point included in air impacts analyses (include only if modeling is required)
  - [x] Exhaust height
  - [x] Exhaust inside dimensions (ex. diameter or length and width)
  - [x] Exhaust gas velocity or volumetric flow rate
  - [x] Exhaust gas exit temperature
  - [x] The volumetric flow rate
  - [x] Description of the discharges (i.e., vertically or horizontally) and whether there are any obstructions (ex., raincap)
  - [x] Identification of the emission unit(s) discharging from the point
  - [x] The distance from the stack to the nearest property line
  - [x] Emission unit building height, width, and length
  - [x] Height of tallest building on-site or in the vicinity and the nearest distance of that building to the exhaust
  - [x] Whether the facility is in an urban or rural location

Does your project cause or contribute to a violation of any ambient air quality standard or acceptable source impact level? [ ] **Yes** [x] **No**

To request ADA accommodation, call Ecology at (360) 407-6800, 711 (relay service), or (877) 833-6341 (TTY)

[1] http://apps.leg.wa.gov/WAC/default.aspx?cite=173-460-150

Appendix B

SEPA Checklist

DETERMINATION OF NONSIGNIFICANCE
REISSUANCE

Description of Proposal
SDS Lumber Company operates a lumber and plywood manufacturing facility. The facility is proposing to install two new stud mill dry kilns (Kiln #3 and Kiln #4) for drying dimensional lumber. The proposed new kilns will be located North of and adjacent to the existing lumber dry kilns #1 and #2. Kiln #3 will be one single-track 88' long kiln with maximum annual production of 24.7 million board feet of lumber and Kiln #4 is one 88' double-track kiln with annual production of 12.3 million board feet of lumber. Similar to existing kilns, new kilns will be in-direct fired lumber drying kilns.

Proponent
SDS Lumber Company

Location of Proposal
The proposal location is 123 Industrial Road, Bingen, Washington 98605, Klickitat County, Washington. Township 03, Range 11 E, Section 37.

Lead Agency
City of Bingen

The SEPA lead agency for this proposal has determined that this action is not likely to have a significant adverse impact upon the environment. Therefore, an Environmental Impact Statement is not required under RCW 43.21C.030(2)(C). The environmental review and SEPA threshold determination of this proposed action are based upon the environmental checklist and related information on file with the City. This information is available to the public on request. This DNS is issued under Washington Administrative Code 197-11-340.

This DNS is issued under WAC 197-11-340(2). There will be no comment period.

Chief Administrative Official:	Catherine Kiewit
Position/Title:	Mayor
Address:	112 N. Ash, P.O. Box 607 Bingen, WA 98605
Phone:	509-493-2122
Date:	November 15, 2023
Signature:	Chief Administrative Official

SEPA[1] Environmental Checklist

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A.Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   Notice of Construction Application for New Source Review

2. **Name of applicant:**

   SDS Lumber Company

3. **Address and phone number of applicant and contact person:**

   Vernon Buchanan

   SDS Lumber Company

   123 Industrial Road

   PO Box 266

   Bingen, WA 98605

   (509) 493-2155

   vernb@sdslumber.com

4. **Date checklist prepared:**

   March 18, 2025

5. **Agency requesting checklist:**

   Washington Department of Ecology ("Ecology").

6. **Proposed timing of schedule (including phasing, if applicable):**

   Upon written approval from Ecology.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   A Notice of Construction Application has been prepared and will accompany this checklist to Ecology's Central Regional Office.

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   No.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

Issuance of Notice of Construction approval by Ecology.

11. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

    A Notice of Construction (NOC) application has been prepared for SDS Lumber Company (SDS) for a minor New Source Review (NSR) of its existing lumber drying Kilns Number 3 (#3) and Number 4 (#4). Kilns #3 and #4 were originally permitted under Approval Order #23AQ-C264, issued on October 10, 2023. The proposed project involves modifying the two lumber drying kilns, which are used to dry dimensional lumber. The operational changes, described in detail therein, will take effect upon Ecology approval of the NOC application.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

    SDS Lumber Company

    123 Industrial Road, Bingen, WA 98605

    PO Box 266 Bingen, WA 98605

    Township 03, Range 11 E, Section 37

    Legal Description: TL 1;TL 6A,6B,6C,6C-1,7,8; TL 12A, 12A-1, 12B, 12C, 12D,12D-1; TL 13, 13A, TL 14 -ALL IN S2; IRR TRACTS-BINGEN 30-3*

    SDS Lumber is located in downtown Bingen, approximately 1 mile east of the Hood River Bridge, between State Hwy 14 and the Columbia River. The facility property abuts the river.

B.Environmental Elements

1. Earth

Find help answering earth questions[3]

a. **General description of the site:**

    Flat.

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

b. What is the steepest slope on the site (approximate percent slope)?

Approximately 5%, shoreline banks are steeper.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Silt, sand, and gravel.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Not applicable.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

Not applicable.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Not applicable.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

Not applicable.

2. Air

Find help answering air questions[4]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

See attached detailed NOC application. The air pollutants from the proposed changes to the Kilns #3 and #4 throughput are PM/PM10/PM2.5 (1.03 tpy), VOCs (34.27 tpy), and toxic air pollutants (see Appendix C of NOC application).

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

c. **Proposed measures to reduce or control emissions or other impacts to air, if any:**

Proper operation and maintenance will be applied to reduce emissions from the proposed kilns.

3. Water

Find help answering water questions[5]

a. **Surface:**
Find help answering surface water questions[6]

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

   Columbia River.

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   Not applicable.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   Not applicable.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   Not applicable.

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   Not applicable.

[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water
[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water

b. Ground:

Find help answering ground water questions[7]

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

   Not applicable.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   Not applicable.

c. Water Runoff (including stormwater):

1. **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

   Not applicable.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Not applicable.

4. Plants

Find help answering plants questions

a. Check the types of vegetation found on the site:

☒ **deciduous tree: alder, maple, aspen, other**

☒ **evergreen tree: fir, cedar, pine, other**

☒ **shrubs**

[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

☒ **grass**

☐ **pasture**

☐ **crop or grain**

☐ **orchards, vineyards, or other permanent crops.**

☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☐ **water plants: water lily, eelgrass, milfoil, other**

☐ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

Not applicable.

c. List threatened and endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

None proposed, area is industrial.

e. List all noxious weeds and invasive species known to be on or near the site.

None.

5. Animals

Find help answering animal questions[8]

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.

Examples include:

- **Birds: hawk, heron, eagle, songbirds, other:**
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

b. List any threatened and endangered species known to be on or near the site.

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals

c. Is the site part of a migration route? If so, explain.

No.

d. Proposed measures to preserve or enhance wildlife, if any.

None.

e. List any invasive animal species known to be on or near the site.

None.

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity, steam.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

None.

7. Environmental health

Health Find help with answering environmental health questions[10]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.

None.

1. **Describe any known or possible contamination at the site from present or past uses.**

   None.

2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

   None.

[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou
[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   None.

4. **Describe special emergency services that might be required.**

   None.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   None.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   Moderate level of noise from existing industrial activities.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   None.

3. **Proposed measures to reduce or control noise impacts, if any:**

   Not applicable.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

   No.

c. Describe any structures on the site.

Existing industrial facilities include numerous buildings and industrial structures.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

Industrial.

f. What is the current comprehensive plan designation of the site?

Industrial.

g. If applicable, what is the current shoreline master program designation of the site?

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any.

None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

9. Housing

Find help answering housing questions[12]

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

   None.

b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

   None.

c. **Proposed measures to reduce or control housing impacts, if any:**

   None.

10. Aesthetics

Find help answering aesthetics questions[13]

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

   Not applicable.

b. **What views in the immediate vicinity would be altered or obstructed?**

   Not applicable.

c. **Proposed measures to reduce or control aesthetic impacts, if any:**

   Not applicable.

11. Light and glare

Find help answering light and glare questions[14]

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

   Not applicable.

b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

   Not applicable.

c. **What existing off-site sources of light or glare may affect your proposal?**

   Not applicable.

d. **Proposed measures to reduce or control light and glare impacts, if any:**

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing
[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics
[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

Not applicable.

12. Recreation

Find help answering recreation questions

a. **What designated and informal recreational opportunities are in the immediate vicinity?**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023

b. **Would the proposed project displace any existing recreational uses? If so, describe.**

   No.

c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

   None.

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

a. **Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

b. **Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

c. **Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

   See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

d. **Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

14. Transportation

Find help with answering transportation questions[16]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

None.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

f. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public services

Find help answering public service questions[17]

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation
[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services

a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

No.

b. **Proposed measures to reduce or control direct impacts on public services, if any.**

No effect.

16. Utilities

Find help answering utilities questions[18]

a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:**

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

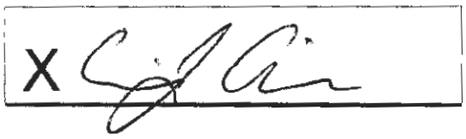
b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

See previous SEPA checklist (12/15/2022) from Approval Order #23AQ-C264, issued October 10, 2023.

C.Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

X 

Type name of signee: Chris Childers

Position and agency/organization: General Manager

Date submitted: March 25, 2025

[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature

D.Supplemental sheet for nonproject actions

Find help for the nonproject actions worksheet[20]

Do not use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

    - **Proposed measures to avoid or reduce such increases are:**

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

    - **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

3. **How would the proposal be likely to deplete energy or natural resources?**

    - **Proposed measures to protect or conserve energy and natural resources are:**

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

    - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

[20] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-d-non-project-actions

- **Proposed measures to avoid or reduce shoreline and land use impacts are:**

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

   - **Proposed measures to reduce or respond to such demand(s) are:**

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

Appendix C

Emissions Calculations and HIA

[Provided Electronically]