Modeling Protocol and Risk Assessment Report (Revision 4)

Stimson Lumber Company—Gaston, Oregon

Prepared for:

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Air Quality Permitting Programs

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Stimson Lumber Company—Gaston, Oregon

The material and data in this report were prepared under the supervision and direction of the undersigned.

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Abbreviations and Acronyms

AAQS	Ambient Air Quality Standards
ACDP	Air Contaminant Discharge Permit
approved risk assessment	risk assessment report approved by the DEQ on August 5, 2024.
ASOS	Automated Surface Observation Systems
BPIP	Building Profile Input Program
CAO	Cleaner Air Oregon
DEQ	Department of Environmental Quality (Oregon)
existing permit	Title V Operating Permit No. 34-2066-TV-01 issued by the DEQ on June 1, 2023
EPA	U.S. Environmental Protection Agency
ESP	dry electrostatic precipitator
GHG	greenhouse gas
g/s	gram per second
HAP	hazardous air pollutant
Hillsboro met station	Portland-Hillsboro Airport station
Mbdft	thousand board feet
MC SU scenario	scenario that assumes up to 9 hours per day where the single boiler exhausts through the uncharged ESP stack for startup conditions.
HAP	hazardous air pollutant
MFA	Maul Foster & Alongi, Inc.
NO_X	total nitrogen oxides
OAR	Oregon Administrative Rule
PM	particulate matter
PM_{10}	particulate matter less than or equal to 10 microns in aerodynamic diameter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in aerodynamic diameter
proposed project	Proposed new sawmill and permitted production increases for existing emission units
RAL	risk action level
RAWP	Risk Assessment Work Plan
RBC	risk-based concentration
the facility	lumber and hardboard facility located at 49800 SW Scoggins Valley Road in Gaston, Oregon 97119
Scrubber SU scenario	scenario that assumes up to 18 hours per day where the single boiler exhausts through the wet scrubber during startup conditions

SET	significant emission threshold
SO_2	sulfur dioxide
Stimson	Stimson Lumber Company
TAC	toxic air contaminant
TEU	toxic emissions unit
ug/m^3	microgram per cubic meter
updated meteorological dataset	complete 5-year period of January 1, 2020, through December 31, 2024
VOC	volatile organic compounds
WWTP	wastewater treatment plant

1 Modeling Summary

Stimson Lumber Company (Stimson) owns and operates a lumber and hardboard facility located at 49800 SW Scoggins Valley Road in Gaston, Oregon 97119 (the facility). Stimson is proposing to expand operations at the facility with the construction of a new sawmill. Summaries of the results of the required modeling for the proposed project are shown below, and more details are provided in subsequent sections. Summaries of the ambient air quality standard (AAQS) analysis results and the updated Level 3 Risk Assessment results are shown in Table 1-1 and Table 1-2, respectively. As shown in Table 1-1, emissions from the proposed project will not cause or contribute to a new exceedance of the short-term AAQS for particulate matter with an aerodynamic diameter of less than or equal to 2.5 microns ($PM_{2.5}$), the only pollutant subject to short-term AAQS modeling.

Table 1-1: AAQS Results Summary

Cumulative Impact Analysis—AAQS Assessment [1]							
Pollutant	Averaging Period	Modeled Impact (ug/m³)	Secondary Impact (ug/m³)	Background Conc. (ug/m³)	Design Value (ug/m³)	AAQS (ug/m³)	Design Value Exceeds AAQS?
$PM_{2.5}$	24-Hour	4.47	0.052	16.0	20.5	35	No

Notes
$PM_{2.5}$ = particulate matter less than 2.5 micrometers in aerodynamic diameter; ug/m³ = micrograms per cubic meter;
AAQS = Ambient Air Quality Standard.
[1] See Table 8-1 for additional data references and details.

As shown in Table 1-2, the proposed project will elevate facility-wide cancer and noncancer risk above the existing risk action level (RAL) that was identified in the Risk Assessment Report approved by the Oregon Department of Environmental Quality (DEQ) on August 5, 2024 (approved risk assessment) for the Cleaner Air Oregon (CAO) permitting program.

Table 1-2: Level 3 Risk Assessment Results Summary (1)

Exposure Assessment	CAO Program Risk/Hazard Index	Updated Facility Risk MC SU Scenario	Updated Facility Risk Scrubber SU Scenario	RAL Analysis
Cancer Risk (chances-in-a-million)				
Residential	16	27	29	Below TBACT Level
Non-Residential Child	<0.1	<0.1	<0.1	Below Source Permit Level
Worker	0.3	1.8	1.9	Below Source Permit Level
Chronic Noncancer Hazard Index				
Residential	0.5	1	2	Below TBACT Level
Non-Residential Child	<0.1	<0.1	<0.1	Below Source Permit Level
Worker	<0.1	0.2	0.3	Below Source Permit Level
Acute Noncancer Hazard Index	1	3	3	Below TBACT Level

Notes
(1) See Table 8-4 and 8-5 for additional data references and details.

2 Introduction

Stimson Lumber Company (Stimson) owns and operates a lumber and hardboard facility located at 49800 SW Scoggins Valley Road in Gaston, Oregon 97119 (the facility). The facility currently operates under Title V Operating Permit No. 34-2066-TV-01 issued by the DEQ on June 1, 2023.

Stimson is proposing to expand operations at the facility with the construction of a new sawmill. The new sawmill will allow for an increase in lumber production from 180,000 thousand board feet (Mbdft) per year to 280,000 Mbdft per year. The new sawmill will include several new sources that have the potential to emit particulate matter (PM), PM with an aerodynamic diameter of less than or equal to 10 microns (PM_{10}), and $PM_{2.5}$. To accommodate the new sawmill, several existing sources at the facility will require an increase in permitted annual throughputs by way of increasing annual operating hours. Collectively, the proposed sawmill and changes are referred to as the "proposed project." A detailed description of the proposed project, including new and modified emission units, is provided in Sections 3 and 4, below, and the Construction Air Contaminant Discharge Permit (ACDP) application being submitted concurrently with this modeling protocol. As discussed in the Construction ACDP application, the proposed project will be considered a Type 3 change per Oregon Administrative Rule (OAR) 3402100225(3).

As identified in the Construction ACDP application, the proposed project will not require an increase in Plant Site Emissions Limits greater than or equal to a Significant Emission Rate above the netting basis for any pollutant. As a result, the proposed project will not trigger New Source Review permitting and subsequently, Class II New Source Review modeling will not be required.

As shown in Table 2-1, the proposed project will result in an increase of daily $PM_{2.5}$ emissions above the short-term emissions threshold. As a result, a 24-hour dispersion modeling assessment for $PM_{2.5}$ will be required to demonstrate short-term emissions from the facility will not exceed the AAQS.

Table 2-1. Proposed Project Short-Term Potential to Emit

Parameter	$PM_{2.5}$ 24-Hour Assessment (lb/day)	SO_2 1-Hour Assessment (lb/hr)	NO_X 1-Hour Assessment (lb/hr)
Proposed PTE	28.1	--	--
Short-Term SET(1)	5	3	3
Proposed PTE Exceeds Short-Term Set?	**YES**	no	no

Notes
-- = No changes proposed to short-term emissions.
(1) DEQ. Recommend Procedures for Air Quality Dispersion Modeling. March 2022.

Stimson retained Maul Foster & Alongi, Inc. (MFA) to prepare the Construction ACDP application and this combined modeling protocol and risk assessment report for the proposed project. The proposed methodology for demonstrating compliance with the short-term AAQS for the affected pollutant is presented in Section 4. As identified in Section 8, the results of a cumulative impact analysis demonstrate that $PM_{2.5}$ emissions from the facility will not cause or contribute to a new exceedance of the short-term AAQS.

On April 25, 2025, MFA submitted a combined application package that included the $PM_{2.5}$ short-term AAQS modeling protocol and report, a CAO modeling protocol, Risk Assessment Work Plan (RAWP), risk assessment report, and the Construction ACDP application. On June 25, 2025, the DEQ provided initial comments pertaining to the CAO modeling protocol, RAWP, and risk assessment report portions of the combined application. This revised report addresses the DEQ comments to these documents.

The remainder of this combined modeling protocol and risk assessment report outlines the modeling methodologies proposed to assess the $PM_{2.5}$ short-term AAQS compliance demonstration for the proposed project and perform an updated level 3 risk assessment to demonstrate that facility-wide risk, including the proposed project, will not exceed any risk action levels (RALs) established during the CAO program. This document includes the results of each assessment when performed according to the proposed methodologies.

3 Facility Description

3.1 Facility Location

The facility is located in Gaston, Oregon, west of Oregon Highway 47 in Washington County. The City of Gaston is located in the Tualatin Valley between the foothills of the Chehalem Mountains and the Coast Range. The area immediately surrounding the facility is the Scoggins Valley, a northwest-southeast-trending valley, with nearby elevations of approximately 1,200 feet above mean sea-level.

Henry Hagg Lake is located northwest of the western property boundary. Stimson owns approximately 716 acres in the Scoggins Valley, including the 63-acre plot on which the facility sits. The facility is surrounded by a mixture of residential, private forest, and agricultural land-use zones. An aerial image of the facility location and the modeling boundary is shown in Figure 2-1. The topography of the area immediately surrounding the facility is presented in Figure 2-2.

3.2 Facility Process Description

The facility procures Douglas-fir, hemlock, and true fir logs from private and company-owned timberlands which are transported to the facility by truck and unloaded for on-site storage in the log yard or log pond.

Logs are sorted in the log yard, then sent for processing in the sawmill. Once in the log processing line, logs are debarked by a debarker and sent to a horizontal saw for further processing. A lug loader is used to separate and route individually cut boards, via lug chains, for the trimming and sorting area. The lumber is then routed to the trimming and sorting area via a mechanical belt.

After trimming and sorting, lumber is sent to one of six steam-heated lumber kilns for drying to an acceptable moisture content. The temperature for each lumber-drying kiln depends on the species of wood; the maximum dry-bulb drying temperature set point for any species is 200 degrees Fahrenheit. Each lumber-drying kiln processes Douglas-fir, hemlock, and true fir species. Lumber products are dried to an acceptable moisture content (typically less than 14 percent) prior to further processing. After kiln drying is complete, dried lumber is sent to the planer for shaping to final product dimensions—typically in lengths of between 6 feet and 10 feet. End seal and other wood treatments are applied to portions of the kiln dried lumber. Final products are stacked and wrapped for storage and eventual shipment off site.

Wood residuals from the sawmill—including chips, sawdust, and planer shavings, referred to as furnish, are used as raw material for a hardboard product. The residuals are sent through a screening process to sort the furnish into material of acceptable size. Wax is added to the furnish via two rotary valves, then the furnish is steamed and softened in two steam-heated digesters. The furnish is further processed in two steam-heated pressurized refiners to produce wood fiber.

The refined fiber slurry is piped to a stock and mix chest where resin is introduced to the fiber. Following the stock and mix chests, the fiber is sent to a secondary refiner, then to the forming machine, where fibers pack together to form a wet mat. Water drains below the mat, assisted by a vacuum pump.

After forming, the mat is trimmed to size and conveyed to a steam-heated press. Emissions from the hardboard press are routed to a scrubber. After leaving the press, the cured panels are stacked, then transported to the rough warehouse for finishing. At the rough warehouse, finishing operations include cutting boards to size, sanding, and punch pressing for a portion of the boards. Additionally, surface coatings, including topcoats and basecoats, are applied to a portion of the hardboards at the paint line.

Steam from three Dutch oven hogged fuel boilers (the existing boilers) is used to provide heat for the lumber-drying kilns and the hardboard plant. Exhaust from the existing boilers can be routed between a dry electrostatic precipitator (ESP) or the fuel dryer, which exhausts to a wet scrubber. Wood residuals from the sawmill are used as fuel for the existing boilers. During the wet months, the residuals are sent through a rotary dryer (fuel dryer) to dehydrate the fuel to an acceptable moisture content for efficient combustion. Heat for the fuel dryer is provided by exhaust from the existing boilers.

The facility employs a wastewater treatment plant (WWTP) to repurpose wastewater from the hardboard plant operations. The WWTP uses an aeration basin and secondary clarifier to reduce the total suspended solids from the wastewater. Once treated, the wastewater is repurposed back to the facility for use in the hardboard plant.

3.3 Proposed Project

The proposed project includes the replacement of the existing sawmill with a new sawmill, which will process whole logs transported to the facility by truck. Logs will be stored in the existing yard adjacent to the proposed sawmill, where wheeled log loaders will transfer them into the sawmill process line. While the log trucks, loaders, and log storage yard are existing sources, they will have an increase in throughput to accommodate the capacity of the proposed sawmill. Once processed, lumber will either be stored near the sawmill for further drying in the existing kilns or sold as green lumber.

The proposed sawmill will be an enclosed system with sawing, and chipping processes fully contained within the building footprint. Exhaust from each process will be routed to a proposed central baghouse. The proposed sawmill will be capable of processing up to 120 Mbdft per hour of lumber and generate approximately 160 green-tons per hour of residual wood chips and 54 green-tons per hour of residual sawdust.

Wood residuals generated from the sawmill, including green chips and green sawdust, will be screened and sorted adjacent to the sawmill building. The proposed sawmill will use two identical screens. Material that meets size specifications will be transferred to existing truck bins or the existing fuel storage pile near the existing boilers, while oversized residuals (overs) will be conveyed to a chipper before re-entering the screens. Appropriately sized green chips will be pneumatically transported through enclosed piping to two high-efficiency cyclones before being deposited in existing, enclosed truck bins. Exhaust from the cyclones will exhaust directly to the atmosphere. Screened green sawdust will be pneumatically transported through enclosed piping to two existing, enclosed truck bins. Displaced air from each green sawdust truck bin will go through a fabric filtration system prior to exhausting to the atmosphere.

Green material that passes through screen 1 will be pneumatically transported directly to the identified truck bins. However, green material that passes through screen 2 may be pneumatically transported to either the identified truck bins or the existing boiler fuel storage pile.

A process flow diagram outlining the proposed sawmill is provided in the Construction ACDP application.

To accommodate the proposed project, Stimson is proposing to increase permitted annual throughputs for several existing sources at the facility. Annual throughput increases are being requested for the existing boilers, lumber kilns, wood fuel dryer, material handling baghouses and cyclones, lumber surface treatment, and vehicle traffic (fugitive road dust). Specific information on the proposed changes in throughputs for these existing processes is provided in the Construction ACDP application.

3.4 Additional Modifications

Stimson recently received updated environmental and vapor pressure information for two resin products (Hardboard Adhesive [BK 276A30] and Hardboard resin [BK 254A20]) that are stored in four separate bulk storage tanks at the facility (existing resin storage tanks). The existing resin storage tanks meet the definition of categorically insignificant sources per OAR 340-200-0020(24)(jj) and are not included in the existing permit. However, there will be a small change in toxic air contaminants (TACs) from the existing resin storage tanks which impact the facility with respect to the CAO permitting program. Additional information on the proposed change in TAC emissions from the resin storage tanks is provided in Subsection 4.2.6, below.

In 2023, VOC emission factor verification source testing was conducted on the press vent scrubber (**H-S123**) and the Refiner scrubber (**H-S5**). As part of this effort, two TACs, methanol and formaldehyde, were also tested. The results of these source tests were incorporated into the CAO emissions inventory for the press vent TEU (ID **HPUV_STK**) and refiner scrubber stack TEU (ID **RF12_STK**).

Stimson is not requesting any modifications to the hardboard facility, emergency engines, fire pumps, other VOC bulk storage tanks, welding operations, or WWTP.

3.5 Boiler Startup Operations (CAO Only)

At times throughout the year, the facility will need to shut down the existing boilers for planned maintenance. Subsequently, the existing boilers will then need to be restarted to resume operations at the facility. In accordance with OAR 340-245-0040(4)(b)(B)(i), startup and shutdown TAC emissions from the existing boilers were quantified and cancer and noncancer risk were modeled during these periods.

During cold boiler startups, only one boiler is initially brought online to gradually raise the temperature to a level suitable for energizing the ESP. The exhaust from this boiler is first routed through the scrubber. As the exhaust temperature increases, the ESP isolation damper is slowly opened to allow warm exhaust to begin heating the ESP. Once the ESP reaches its operating temperature range of between 220 to 250 degrees Fahrenheit, it can be energized and the scrubber isolation damper closed. After the ESP is fully charged, Stimson may bring the remaining two boilers online as needed. During the startup period, emissions from the single operating boiler are controlled by the wet scrubber and multi-clone system only. During shutdown, exhaust continues to pass through the charged ESP until combustion of the wood fuel ceases. For this reason, MFA proposes that boiler shutdown periods not be included, as the boilers will remain fully controlled by the energized ESP.

In rare cases, the startup process may require extended time where the single boiler exhausts through either the multi-clone or the wet scrubber. To account for these situations, MFA estimated acute noncancer risk during boiler startups for two separate scenarios. Scenario 1 assumes up to 9 hours per day where the single boiler exhausts through the uncharged ESP stack for startup conditions (MC SU scenario). Scenario 2 assumes up to 18 hours per day where the single boiler exhausts through the wet scrubber during startup conditions (Scrubber SU scenario). Both scenarios were assessed assuming all other TEUs at the facility operate at their PTE daily throughput rate concurrently during the 24-hour period.

Stimson estimates that the number of planned boiler startups for maintenance purposes will not exceed 40 times per year. For chronic cancer and noncancer risk from boiler startup, annual TAC emissions were estimated for the MC SU scenario and the Scrubber SU scenario. Both scenarios were assessed assuming all other TEUs at the facility operate at their PTE annual throughput rates.

To assess the worst-case scenario, MFA will take the highest excess cancer, chronic noncancer, and acute noncancer risk between the two scenarios and compare them against the appropriate RAL.

4 Emission Estimates and Model Sources

The emissions inventory containing estimated emissions of criteria pollutants, greenhouse gases (GHG), hazardous air pollutants (HAPs), and toxic air contaminants (TACs) is presented in Appendix A of the Construction ACDP application. The following subsections detail each proposed and modified (i.e., change in production rate) emission unit as part of the proposed project, and existing emissions units that will be modeled with the updated level 3 risk assessment.

4.1 Proposed Emission Units

4.1.1 Proposed Baghouse (SM-BGH)

PM, PM_{10}, and $PM_{2.5}$ emissions from the proposed baghouse are provided in Appendix A of the Construction ACDP.

The exhaust stack for the proposed baghouse will be represented in the air dispersion model as a vertical point source with model ID **SM_BGH**. Stack height and exhaust parameters for the proposed baghouse were provided by the proposed sawmill vendor. The proposed model source parameters and short-term $PM_{2.5}$ AAQS model emission rates for **SM_BGH** are presented in Table 4-1.

4.1.2 Proposed Residuals Screens (SM-SCN1 and SM-SCN1)

Fugitive PM, PM_{10}, and $PM_{2.5}$ emissions from the proposed screens are provided in Appendix A of the Construction ACDP.

The proposed screens will be represented in the air dispersion model as individual volume sources with model IDs **SM_SCN1** and **SM_SCN2**. Volume source dimensions and parameters for the two proposed screens were estimated using schematics provided by the proposed sawmill vendor. The proposed model source parameters and short-term $PM_{2.5}$ AAQS model emission rates for **SM_SCN1** and **SM_SCN2** are presented in Table 4-1.

4.1.3 Proposed Overs Chipper (SM-CHP)

Fugitive PM, PM_{10}, $PM_{2.5}$, volatile organic compound (VOC), and TAC emissions from the proposed overs chipper are provided in Appendix A of the Construction ACDP.

The proposed chipper will be represented in the air dispersion model as an individual volume source with model ID **SM_CHP**. Volume source dimensions and parameters for the proposed chipper were estimated using schematics provided by the proposed sawmill vendor. The proposed model source parameters and short-term $PM_{2.5}$ AAQS model emission rates for **SM_CHP** are presented in Table 4-1.

4.1.4 Proposed Truck Bin Cyclones (TB-CYC2 and TB-CYC2)

PM, PM_{10}, and $PM_{2.5}$ emissions from the proposed truck bin cyclones are provided in Appendix A of the Construction ACDP.

The exhaust stacks for the proposed truck bin cyclones will be represented in the air dispersion model as a vertical point source with model IDs **TB_CYC1** and **TB_CYC2**. Stack height and exhaust parameters for the proposed truck bin cyclones were provided by the proposed sawmill vendor. The proposed model source parameters and short-term $PM_{2.5}$ AAQS model emission rates for **TB_CYC1** and **TB_CYC2** are presented in Table 4-1.

4.1.5 Proposed Truck Bin Baghouses (TB-BGH1 and TB-BGH2)

PM, PM_{10}, and $PM_{2.5}$ emissions from the proposed truck bin baghouses are provided in Appendix A of the Construction ACDP.

The exhaust stacks for the proposed truck bin baghouses will be represented in the air dispersion model as a horizontal point source with model IDs **TB_BGH1** and **TB_BGH2**. Stack height and exhaust parameters for the proposed truck bin baghouses were provided by the proposed sawmill vendor. The proposed model source parameters and short-term $PM_{2.5}$ AAQS model emission rates for **TB_BGH1** and **TB_BGH2** are presented in Table 4-1.

4.1.6 Proposed Fuel Drop (DROP)

Fugitive PM, PM_{10}, and $PM_{2.5}$ emissions from the proposed residual fuel drop are provided in Appendix A of the Construction ACDP.

The proposed fuel drop will be represented in the air dispersion model as an individual volume source with model ID **SM_DROP**. Volume source dimensions and parameters for the proposed drop were estimated using information provided by Stimson. The proposed model source parameters and short-term $PM_{2.5}$ AAQS model emission rates for **SM_DROP** are presented in Table 4-1.

4.2 Existing Emission Unit Modifications

The following are existing emission units that are part of the proposed project but are not being replaced or modified as part of the project. As a result, these emission units will only be included with the updated level 3 risk assessment.

4.2.1 Hogged-Fuel Boilers (H-BLR)

Criteria pollutants, GHG, HAP, and TAC emissions increases from the existing boilers related to the increase in annual usage are provided in Appendix A to the Construction ACDP application. To account for source test variability, MFA is proposing to add multipliers to the TAC emission factors used for the boiler when controlled by either the ESP or scrubber. The TAC emission factors including the multipliers are provided in Appendix A to the Construction ACDP application. Stimson is not proposing to alter the existing configuration or physically modify equipment or components of the existing boiler system. As a result, MFA proposes to use the same model source parameters and emissions allocations as was submitted with approved risk assessment for normal operating conditions.

For startup conditions when the single boiler exhausts through the uncharged ESP Stimson identified, through previously collected data, that the exhaust temperature is lower than during normal operation. During these startup periods the average temperature is approximately 142 degrees Fahrenheit, which is lower than the average exhaust temperature of the charged ESP stack at approximately 450 degrees Fahrenheit. To account for this in the risk assessment, MFA modeled startup emissions through the uncharged ESP assuming a second stack that included the lower exhaust temperature. No additional data were available for exit velocity or airflow through the uncharged ESP stack or during startup conditions through the wet scrubber. As a result, MFA assumed these parameters were the same as during normal conditions.

The exhaust stacks for the existing boilers will be represented in the air dispersion model as individual point sources with unique labels (HBLR_ESP), (HBLR_SCR) and (HBLR_MC). The model source parameters are presented in Table 4-1. Annual TAC emissions for normal operations and boiler startup operations are presented in Table 4-2. Daily TAC emissions for normal operations and boiler startup operations are presented in Table 4-3. For the 24-hour (acute) assessment, the risk equivalent emission rates for HBLR_ESP and HBLR_SCR during normal operations and HBLR_MC during startup operations are provided in Table 4-4.

4.2.2 Fuel Dryer (S-400)

Criteria pollutant, GHG, HAP, and TAC emissions increases from the existing fuel dryer related to the increase in annual usage are provided in Appendix A to the Construction ACDP application. Stimson is not proposing to alter the existing configuration or physically modify equipment or components of the existing fuel dryer system. Therefore, TAC emissions for the existing fuel dryer will be emitted through BLR_SCR as conducted in the approved risk assessment.

The source parameters for the BLR_SCR are presented in Table 4-1. Annual TAC emissions are presented in Table 4-2 and daily TAC emissions are presented in Table 4-3. For the 24-hour (acute) assessment, the risk equivalent emission rate for BLR_SCR are provided in Table 4-4.

4.2.3 Lumber Kilns (LBR-DK)

VOC, HAP, and TAC emissions increases from the existing lumber kilns related to the increase in annual usage are provided in Appendix A to the Construction ACDP application. Stimson is not proposing to alter the existing configuration or physically modify equipment or components of the existing fuel dryer system. As a result, MFA proposes to use the same model source parameters and emissions allocations as was submitted with approved risk assessment.

Kiln 1 will be represented as four volume sources with unique labels (KILN1_1 through KILN1_4). Kilns 2 through 6 will be represented as 15 individual volume sources (three per kiln) with unique labels (KILN2_1 through KILN2_3, KILN3_1 through KILN3_3, KILN4_1 through KILN4_3, KILN5_1 through KILN5_3, and KILN5_1 through KILN5_3). The thermal buoyancy derivations and emissions allocation for the 19 modeled sources for the kilns are provided in Table 4-5 and Table 4-6, respectively. In the case of the thermal buoyancy derivations, where ambient meteorological data were used (i.e., ambient temperature and wind speed), these values were updated based on the most current 5-year dataset used for the modeling. Additional information on this dataset is provided in Section 5, below.

The source parameters for the 19 kiln vents are presented in Table 4-1. Annual TAC emissions are presented in Table 4-2 and daily TAC emissions are presented in Table 4-3. For the 24-hour (acute) assessment, the risk equivalent emission rates for the kilns are provided in Table 4-4.

4.2.4 Planer Mill Cyclone (S-182)

PM, PM_{10}, $PM_{2.5}$, and TAC emissions increases from the existing green-wood chipper related to the increase in annual usage are provided in Appendix A to the Construction ACDP application. As identified in the approved risk assessment, TAC emissions from the existing green-wood chipper are exhausted through the planer cyclone. Stimson is not proposing to alter the existing configuration or physically modify equipment or components of the existing green-wood chipper or planer mill cyclone. As a result, MFA proposes to use the same model source parameters for **S_CYC** as was submitted with approved risk assessment.

The point source parameters for the **S_CYC** are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rate for **S_CYC** is provided in Table 4-4.

4.2.5 Lumber Surface Treatment (MB-VOC)

Fugitive VOC, HAP, and TAC emissions increases from the existing lumber surface protection application related to the increase in annual usage are provided in Appendix A to the Construction ACDP application. Stimson is not proposing to alter the existing configuration or physically modify equipment or components of the existing lumber surface protection application system. As a result, MFA proposes to use the same model source type (volume) and release parameters for **LSP** as was submitted with approved risk assessment.

The volume source parameters for the **LSP** are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rate for **LSP** is provided in Table 4-4.

4.2.6 Resin Storage Tanks

Fugitive TAC emissions from the existing resin storage tanks are provided in Appendix A to the Construction ACDP application. The hardboard adhesive [BK 276A30] is stored in tanks 1, 2, and 3, which correspond to TEU ID's **RESIN1**, **RESIN2**, and **RESIN3**, respectively. MFA proposes to use the same model source parameters for these TEUs as was submitted in the approved risk assessment.

The hardboard resin [BK 254A20] is stored in a fourth tank, which is located adjacent to the hardboard white water tank inside a room on the west side of the hardboard plant. Fugitive TAC emissions from standing and working losses can enter the atmosphere via a bay door that is periodically opened and located near the tanks. This bay door was identified as (TEU ID **WHITE**) in the approved risk assessment. As such, MFA proposes to add emissions from the fourth resin tank to existing TEU ID **WHITE** in the dispersion model.

The volume source parameters for the existing resin storage tanks and the bay door are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rates for the existing resin storage tanks are provided in Table 4-4.

4.3 Other Existing Toxic Emission Units

The following devices and activities are not part of or impacted by the proposed project but are existing toxic emission units (TEUs) that were included with the approved risk assessment. MFA is proposing to include these TEUs with the revised level 3 risk assessment to demonstrate that total facility-wide cancer and noncancer risk will not exceed acceptable levels when including the proposed project and during boiler startup periods.

4.3.1 Refiners

MFA proposes to use the same model source parameters for the refiner TEUs (**REF_RV** and **REF_S5**) as was submitted in the approved risk assessment.

The point source parameters for **REF_RV** and **REF_S5** are presented in Table 4-1. Annual TAC emissions are presented in Table 4-2 and daily TAC emissions are presented in Table 4-2 and Table 4-3. For the 24-hour (acute) assessment, the risk equivalent emission rates for refiner TEUs are provided in Table 4-4.

4.3.2 Forming Line

MFA proposes to use the same model source parameters for the forming line TEUs (**FORM_STK** and **FORM_FUG**) as was submitted in the approved risk assessment.

The point source parameters for **FORM_STK** and the volume source parameters for **FORM_FUG** are presented in Table 4-1. Annual TAC emissions are presented in Table 4-2 and daily TAC emissions are presented in Table 4-3. For the 24-hour (acute) assessment, the risk equivalent emission rates for forming line TEUs are provided in Table 4-4.

4.3.3 Hardboard Press

MFA proposes to use the same model source parameters for the hardboard press TEUs (**PVUV_STK** and **HPVUV_FUG**) as was submitted in the approved risk assessment.

The point source parameters for **PVUV_STK** and the volume source parameters for **HPVUV_FUG** are presented in Table 4-1. Annual TAC emissions are presented in Table 4-2 and daily TAC emissions for are presented in Table 4-3. For the 24-hour (acute) assessment, the risk equivalent emission rates for hardboard press TEUs are provided in Table 4-4.

4.3.4 Hardboard Paint Application

MFA proposes to use the same model source parameters for the top and bottom paint application TEU (**PAINT**) as was submitted in the approved risk assessment.

The volume source parameters for **PAINT** are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rates for the top and bottom paint application TEU are provided in Table 4-4.

4.3.5 Hardboard Wastewater

MFA proposes to use the same model source parameters for the hardboard wastewater system TEUs (**WHITE**, **MACH**, and **HEADBOX**) as was submitted in the approved risk assessment.

The point source parameters for **HEADBOX** and the volume source parameters for **WHITE** and **MACH** are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rates for **WHITE**, **MACH**, and **HEADBOX** are provided in Table 4-4.

4.3.6 Wastewater Treatment

MFA proposes to use the same model source parameters for the WWTP TEUs (**HYDRO**, **SCR_HYDRO**, **CLAR, PIT, ABASE, S_POND, R_POND, SURGE,** and **E_POND**) as was submitted in the approved risk assessment.

The area source parameters for the WWTP TEUs are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rates for the WWTP TEUs are provided in Table 4-4.

4.3.7 Gas Storage Tank

MFA proposes to use the same model source parameters for the gas bulk storage tank TEU (**GAS**) as was submitted in the approved risk assessment.

The volume source parameters for the gas bulk storage tank TEU are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rate for the gas bulk storage tank TEU is provided in Table 4-4.

4.3.8 Emergency Engines

MFA proposes to use the same model source parameters for the diesel-fueled emergency engine TEUs (**BGEN, FIRE,** and **EGEN01**) as was submitted in the approved risk assessment.

The point source parameters for the emergency engine TEUs are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rates for the emergency engine TEUs are provided in Table 4-4.

4.3.9 Welding Activities

MFA proposes to use the same model source parameters for welding activity TEU (**WELD**) as was submitted in the approved risk assessment.

The volume source parameters for the welding activities TEU are presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rate for the welding activities TEU is provided in Table 4-4.

4.3.10 Babbitt Pot

MFA proposes to use the same model source parameters for babbitt pot TEU (BPOT) as was submitted in the approved risk assessment.

The point source parameters for the babbitt pot TEU is presented in Table 4-1, and the annual and daily TAC emissions are presented in Table 4-2 and Table 4-3, respectively. For the 24-hour (acute) assessment, the risk equivalent emission rate for the babbitt pot TEU is provided in Table 4-4.

5 Air Dispersion Modeling Methodology

The following subsections detail the proposed air dispersion model methodology, including input parameters and assumptions applicable to the short-term AAQS demonstration and updated level 3 risk assessment dispersion model.

5.1 Model Selection

MFA proposes to execute the dispersion model using the model versions shown in Table 5-1 below. Lakes Environmental, a third-party overlay software, will be used to execute the dispersion model.

Table 5-1. Model Selection

Model	Model Version
AERMOD	24142
AERMET	24142
AERMAP	24142
AERSURFACE	24142
AERMINUTE	15272
BPIP	04274

5.2 Meteorological Data

MFA proposes to use data from the same meteorological stations and sources, as shown in Table 5-2, that were used in the approved risk assessment

Table 5-2. Meteorological, Land Use, and Terrain Data

Dataset	Data Reference
Surface	Station ID 94285 for Portland-Hillsboro Airport, Oregon (National Oceanic and Atmospheric Administration)
ASOS 1-minute	
Precipitation	
Upper Air	Station ID 24232 for Salem, OR (National Oceanic and Atmospheric Administration/ Earth System Research Laboratory Radiosonde Database)
Land Use	State of Oregon National Land Cover Data Set 2023 (U.S. Geological Survey)
Terrain	1/3-arc seconds with horizontal resolution of 10 meters (U.S. Geological Survey National Elevation Dataset)

MFA proposes to update the meteorological dataset to be representative of the current 5-year period of January 1, 2020, through December 31, 2024 (updated meteorological dataset). All AERMET, AERMINUTE, and AERSURFACE processing methods will be consistent with the approved risk assessment. A summary of the processing settings that will be used for AERMET is shown in Table 5-3.

Table 5-3. AERMET Settings

Parameter	Setting	Reference
Randomize Wind Directions (Yes/No)	No	EPA 2013a
Missing Cloud Cover Substitution (Yes/No)	Yes	EPA 2024a
Missing Temperature Substitution (Yes/No)	Yes	EPA 2024a
Minimum Wind Speed (m/s)	0.50	EPA 2013a
Low Wind Option Enabled? (Yes/No)	Yes	DEQ 2022

An analysis of the missing hours for the updated meteorological dataset was performed by running the AERMET QA Tool. As shown in Table 5-4, all quarters in the updated meteorological dataset meet the 90 percent data completeness criteria specified in the U.S. Environmental Protection Agency (EPA) Monitoring Guidelines[1]. A windrose identifying the prevailing wind direction for the updated meteorological dataset is provided in Figure 5-1.

5.3 AERSURFACE Land Use and Terrain

State of Oregon National Land Cover Data Set 2023 land cover class definitions, along with concurrent percent impervious surface and percent tree canopy[2] data, were downloaded from the U.S. Geological Survey, and processed using the AERSURFACE settings described in Table 5-5, to generate the surface characteristics necessary to run AERMET.

[1] EPA. 2000. Meteorological Monitoring Guidance for Regulatory Modeling Applications. EPA453/R-99-005. U.S. Environmental Protection Agency. February.
[2] The most current available tree canopy for the modeling domain is from the 2016 calendar year.

Table 5-5. Proposed AERSURFACE Settings

Parameter	Setting
Study radius for surface roughness	1.0 kilometer
Are the surface data collected at an airport?	Yes
Should continuous snow cover be assumed?	No
Is this an arid region?	No
Number of sectors	12
Months assumed to constitute "winter"	December, January, and February
Months assumed to constitute "Spring"	March, April, and May
Months assumed to constitute "Summer"	June, July, and August
Months assumed to constitute "Autumn"	September, October, and November
Period for land use calculations	Monthly

Soil moisture conditions were determined following the methodology set forth in Section 3.2.8 of the EPA User's Guide for the AERSURFACE Tool, dated November 2024 (AERSURFACE User's Guide; EPA 2024b). MFA proposes to use precipitation data measured at the Portland-Hillsboro Airport station (Hillsboro met station) in Hillsboro, Oregon. Although the Hillsboro met station only has 26-consecutive years of available data, MFA believes this period is sufficient to characterize soil moisture conditions for dispersion modeling purposes. The Hillsboro met station was chosen in lieu of using precipitation data measured at the Dilly Station in Gaston, Oregon, as was done in the approved risk assessment, as the Hillsboro met station is the same in-situ station used for AERMET input.

Annual precipitation data for each year of the updated meteorological data set were reviewed and compared against the 26-year climatological record to determine the representative soil moisture condition for each modeling year. As shown in Table 5-6, the annual precipitation remained varied between the lower 30th percentile to the upper 70th percentile of the 26-year climatological record.

MFA will execute the air dispersion model using rural dispersion coefficients. To make this determination, MFA followed the land-use procedure, as recommended in Section 7.2.1.1(b) of Appendix W to Part 51 *Guideline on Air Quality Models,* to conclude that less than 50 percent of the land use in the modeling domain is represented by the urban land-use type.

5.4 Emission Unit Locations

The locations of each proposed emissions unit to be included in the level 3 risk assessment and short-term $PM_{2.5}$ AAQS dispersion models are shown in Figure 5-2 and Figure 5-3, respectively.

For volume sources that are located on or adjacent to buildings, initial horizontal dimension and initial vertical dimension were calculated using the EPA method specified in the *User's Guide for the Industrial Source Complex Dispersion Models—Volume II—Description of Model Algorithms* (1995). Release heights were set to half the building height. Release heights for the kilns were adjusted to account for thermal buoyancy using the methods discussed in Section 4.2.3 of this modeling and risk assessment report.

5.5 Building Downwash

The current version of the Building Profile Input Program, shown in Table 5-1, will be used. The locations for structures that influence downwash are presented in Figure 5-4. Table 5-7 presents a summary of the proposed building heights to be included in the air dispersion model.

5.6 AAQS and Level 3 Risk Assessment Model Receptor Locations and Terrain

Receptors for the short-term AAQS compliance demonstration dispersion model and level 3 risk assessment will be defined consistent with Section 2.4 of the DEQ's guidance document (DEQ Recommended Procedures) (DEQ 2022) as shown in Table 5-8 below. Table 5-9, provided in electronic version only, shows all receptor locations and their exposure classification.

5-8: Proposed Receptor Locations

Receptor Spacing (meters)	Receptor Distance (meters)
25	Along the property boundary and out to at least 200 meters from the property boundary.
50	200 to 1,000
100	1,000 to 2,000
200	2,000 to 5,000
500	5,000 to 10,000

Figure 5-5 presents the proposed receptor spacing and locations within the modeling domain. Figure 5-6 presents the proposed receptor locations in the area immediately surrounding the employee access area. As shown in Figure 5-6, the property boundary has been updated from the approved risk assessment to exclude an area near the east entrance of the facility. This area is being leased to Fox Lumber Sales and therefore, will be considered worker exposure locations in the level 3 risk assessment and short-term $PM_{2.5}$ AAQS compliance demonstration. Due to the change in property boundary, fence line receptors have moved slightly (varying up to 0.5 meters) relative to the receptors in the approved risk assessment to accommodate the 25-meter spacing.

Receptors that fall along roadway and/or rail right-of-way interstitial spaces are identified in black in Figure 5-5 and Figure 5-6. As described in Section 6.2.1 below, MFA proposes to not assess risk in the level 3 risk assessment at these locations. However, these receptors will be included in the short-term $PM_{2.5}$ AAQS compliance demonstration.

Terrain elevations for proposed model receptors, emission unit base elevations, and downwash structures base elevations will be derived from the US Geological Survey National Elevation Dataset as shown in Table 5-2 and processed using the current version of AERMAP.

5.7 Sensitive Receptors – CAO Only

MFA reviewed an area within 1.5 kilometers of the facility property boundary to identify whether there were any locations considered to be sensitive areas (e.g., schools, hospitals). Results of the review indicated that there are no sensitive locations within 1.5 kilometers of the facility. The nearest child exposure location was determined to be a school located 3.8 kilometers from the facility. To assess cancer and noncancer risk at the child exposure location, a discrete receptor will be placed at the location shown in Table 5-10.

5-10: Identification of Nearest Child Exposure Location

UTM Coordinates (m)		Child Exposure Location
Easting	Northing	
488,733.77	5,031,352.85	Gaston Union Jr./Sr. High School

Notes
UTM = universal transversal mercator
m = meter

5.8 Proposed Model Emission Rates – CAO Only

MFA proposes to execute the dispersion model using unit emission rates for annual assessments (excess cancer and chronic noncancer) for significant toxic emission units (TEUs). The maximum modeled unit concentration in micrograms per cubic meter (ug/m^3) at each modeled receptor for the annual averaging period will be considered a modeled “dispersion factor” in units of ug/m^3 per grams per second (g/s). When this dispersion factor is multiplied by the g/s TAC emission rate for the modeled TEU, the result is the modeled concentration of the TAC. Therefore, a single unit emission rate model result can be used to calculate the modeled concentration for each TAC. The dispersion factors, in combination with TAC emission rates for each TEU in g/s and the risk-based concentrations (RBCs) in ug/m^3 set forth under OAR 340-245-8010 Table 2, will be used to conduct the chronic cancer and noncancer level 3 risk assessments. The proposed chronic model emission rates for each TEU are provided in Table 4-2.

For the 24-hour (acute) assessment, MFA developed risk equivalent emission rates for each TEU. The proposed risk equivalent emission rates were calculated by dividing the individual TAC emission rate for each TEU by their respective acute RBC. The resulting value for each TAC was then summed together to create a total risk equivalent emission rate for the TEU. This process was repeated for each TEU at the facility. The risk equivalent emission rates will be modeled for the 24-hour averaging period to assess the cumulative acute risk from the facility. The proposed risk equivalent emission rates are provided in Table 4-4.

6 Short-term AAQS Assessment

As stated in Section 2, the facility must demonstrate compliance with the $PM_{2.5}$ 24-hour AAQS as part of the permitting process. The facility is not located in a Class I designated area under OAR 340-204-0050. As a result, the facility is considered to be located in a Class II designated area for purposes of dispersion modeling per OAR 340 204 0060(1)(a).

6.1 Cumulative Impact Assessment

MFA will execute the dispersion model to predict the concentrations from the proposed project emissions using the model emission rates from Table 4-1 and the competing source emission rates discussed in section 6.3. Predicted concentrations from the dispersion model will be added to the secondary impacts, as discussed in Section 6.2, and background concentration, as discussed in Section 6.4, resulting in a design value. The design value will be compared to the short-term $PM_{2.5}$ AAQS. The modeling input and output files are provided electronically as Attachment A for review along with the submittal of this modeling report and risk assessment report.

6.2 Secondary Impacts

Emissions of total nitrogen oxides (NO_X) and sulfur dioxide (SO_2) contribute to the formation of secondary $PM_{2.5}$ in the form of nitrates and sulfates. The formation of secondary $PM_{2.5}$ has an additive impact on modeled concentrations of as emitted, direct $PM_{2.5}$. MFA proposes to follow the qualitative Tier 1 approach to determine impacts of secondary $PM_{2.5}$ formation according to EPA's memorandum (EPA 2019a).

MFA used the most conservative secondary $PM_{2.5}$ values shown in Table 4-1 of the guidance document (EPA 2019a) to calculate site-specific secondary formation impacts as shown in Table 6-1. MFA proposes adding the $PM_{2.5}$ 24-hour secondary impact concentration shown in Table 6-1 to the direct $PM_{2.5}$ concentration predicted for the short-term $PM_{2.5}$ AAQS assessments.

6.3 Competing Source

Table 6-2 presents the modeled release parameters and emission rates for the competing source inventory provided by the DEQ on February 27, 2025. Since the time the competing source inventory was provided by the DEQ, proposed annual $PM_{2.5}$ emissions from the proposed project have decreased significantly. As a result, MFA reassessed the competing source inventory using the "Range of Influence formula" analysis described in OAR 340-225-0020(10). MFA determined that one of the competing sources provided by DEQ, at a distance of approximately 10.6 kilometers from the facility, is outside the range of influence and therefore, has been removed from consideration as a competing source.

Figure 5-3 presents the location for the single modeled competing source for the short-term $PM_{2.5}$ AAQS compliance demonstration.

6.4 Background Concentrations

Consistent with Section 3.4 of the DEQ Recommended Procedures and in anticipation of dispersion modeling, MFA obtained background concentrations from the Northwest International Air Quality Environmental Science and Technology (e.g., NW AIRQUEST) Consortium lookup tool. MFA used the average of the four nearest values surrounding the facility location to estimate the proposed background concentrations presented in Table 6-3.

7 Risk Assessment Work Plan

The following subsections detail the proposed inputs and assumptions that were used in support of the revised Level 3 Risk Assessment developed using the same methodology outlined in the approved risk assessment. However, with a slightly different assessment boundary as described in Section 5.6.

7.1 Conceptual Site Model

Sections 2 through 5 discuss the facility location, process description, TEUs, and TAC emission estimates to satisfy the requirements for a conceptual site model set forth under OAR 340-245-0210(2)(a). Exposure locations are described in more detail in Section 7.2 below. All TEUs, except for the two diesel storage tanks (TEU IDs TANKS_DSL1 and TANKS_DSL2), will be classified as Significant TEUs and therefore, aggregate and gas exempt TEUs are not applicable for the facility.

7.1.1 Non-Exempt TEUs

Calculated risks associated with Significant TEUs will be compared with the applicable RALs. A Level 3 Risk Assessment will be conducted that includes all non-exempt facility TEUs.

7.2 Exposure Assessment

7.2.1 Land-Use Zoning Classification Data for Determining Exposure Types

The Department of Land Conservation and Development's statewide zoning data were reviewed to determine land-use classifications for areas in the modeling domain. The Oregon statewide zoning classifications provide the basis for the initial categorization of exposure classifications (i.e., residential, nonresidential worker, nonresidential child, or acute only).

The zoning data were further evaluated against local data such as the Washington County zoning and school-location information. MFA also reviewed aerial imagery, using Esri ArcGIS and Google Earth software to determine whether the existing zoning information reflects actual land use and the corresponding exposure type categorization.

Using the same review process as was conducted in the approved risk assessment, MFA indicated that multiple proposed receptor locations fall within roadway and/or rail right-of-way interstitial spaces, which are identified in black in Figure 5-5 and Figure 5-6. These locations are proposed for dispersion modeling to maintain a uniform receptor grid. MFA does not propose to conduct risk evaluations for any receptor locations in roadways or rail rights-of-way that fall within the 25m and 50m spacing. In the crosswalk-of-receptors, Table 5-9, these locations are labeled as "Risk Not Assessed," even though they will be modeled. Exposure locations that are located within a roadway and/or rail right-of-way outside of the 50m grid will be assigned the same as the nearest exposure category.

Figure 7-1 presents the existing land-use zoning identified for the modeling domain, and Figure 7-2 is provided for the area immediately surrounding the facility. Figures 7-3 and 7-4 present the corresponding exposure location categorization for the modeling domain and the immediate area surrounding the facility, respectively.

7.2.2 Exposure Pathways

MFA assumes that predicted cancer and noncancer risk (i.e., chronic and acute hazard index) resulting from facility TEUs will not have additional exposure pathways (i.e., ingestion or injection) other than those already accounted for in each published RBC. Moreover, based on a review of land-use zoning classifications and aerial imagery, there are no known locations that might present additional exposure pathways that require further analysis. Since no additional exposure pathways have been observed, a Level 4 Risk Assessment is not warranted.

7.2.3 Risk-Based Concentrations

Excess cancer risk and chronic and acute noncancer risk will be assessed using the most current RBCs available as shown in OAR 340 245 8010 Table 2. The TACs from the emissions inventory and corresponding RBCs to be included in the Level 3 Risk Assessment are presented in Table 7-1.

7.3 Risk Estimates

As described in Section 5.8, a single dispersion model will be executed using a unit emission rate of 1 g/s for each TEU for annual (chronic cancer and noncancer) assessments. For the 24-hour (acute) assessment, MFA developed risk equivalent emission rates for each non-exempt TEU, as shown in Table 4-4.

7.3.1 Example Calculation—Level 3 Risk Assessment

Example calculations for estimating excess cancer risk and chronic noncancer hazard index for a single proposed exposure location are presented in Equation 1 and Equation 2 per OAR 340-245-0210(2)(c).

Equation 1.

$$\text{Excess Cancer Risk (chances-in-a-million)} = \sum \frac{(\text{TAC annual emission rate [g/s]}) \times \left(\text{proposed TEU dispersion factor} \left[\frac{\mu g/m^3}{g/s}\right]\right)}{(\text{applicable RBC at exposure location [ug/m}^3\text{]})}$$

Equation 2.

$$\text{Chronic Noncancer Hazard Index } = \sum \frac{(\text{TAC annual emission rate [g/s]}) \times \left(\text{proposed TEU dispersion factor } \left[\frac{\mu g/m^3}{g/s}\right]\right)}{(\text{applicable RBC at exposure location [ug/m}^3\text{]})}$$

The total facility excess cancer risk and chronic noncancer hazard index will be derived by summing each individual TAC risk contribution at each proposed exposure location.

7.4 Uncertainty Analysis

Although the proposed Level 3 Risk Assessment will be conducted using the most accurate and current information, there are various levels of uncertainty associated with the proposed risk assessment. Per OAR 340 245 0210(2)(d), known quantitative and qualitative uncertainties with the proposed Level 3 Risk Assessment include, but may not be limited to, the following:

<u>Acute Assessments:</u>

- To assess acute noncancer risk, the full 24-hour exposure duration was assumed. While it is unlikely a person would be at most of the exposure locations for 24 consecutive hours, this method provides a worst-case potential exposure duration for an individual at these locations. For example, if an employee at an identified acute exposure location only works a single, eight-hour shift, the exposure would only be a third of what is being assumed in the Level 3 Risk Assessment. **Hence, the Level 3 Risk Assessment may overestimate acute noncancer risk due to the 24-hour exposure duration assumption for chemicals with RBCs based on Toxicity Reference Values with an exposure period of 24-hours or more. Conversely, the Level 3 Risk Assessment may underestimate acute noncancer risk for Toxicity Reference Values with an exposure period of less than 24 hours because the model is executed for the 24-hour averaging period.**
- The Level 3 Risk Assessment was conducted assuming each TEU at the facility is operating at maximum potential to emit, simultaneously. For example, the three boilers typically do not need to operate at the maximum potential to emit to satisfy the steam requirements of the facility. It is highly unlikely that all TEUs at the facility will operate at their maximum potential to emit for a 24-hour period simultaneously. **Therefore, the Level 3 Risk Assessment likely overestimates acute noncancer risk due to unrealistic operating conditions.**
- The Level 3 Risk Assessment relies on modeling using a five-year period of hourly meteorological data. Some meteorological conditions, which may only occur a few days or less in a five-year period, result in worst-case dispersion characteristics. It is extremely unlikely that these infrequent meteorological conditions would occur at the same time that the facility is simultaneously operating all TEUs at maximum potential to emit. **Therefore, the Level 3 Risk Assessment likely overestimates acute noncancer risk because of the improbability of facility operations at maximum potential to emit aligning with worst-case meteorological conditions.**

<u>Cancer and Chronic Noncancer Assessments:</u>

- The RBCs developed by the DEQ for excess cancer risk and chronic noncancer risk assume a 70-year exposure duration for 24 hours per day. It is unlikely that a person would remain at the same residence or in areas potentially impacted by emissions covered by the CAO program for 70 consecutive years for 24 hours per day. The risk assessments also account for a person being exposed to the local facility emission rate for the entire exposure duration (i.e., 70 years). **Therefore, the Level 3 Risk Assessment will overestimate cancer and chronic noncancer risk due to the unrealistic exposure duration assumption.**

All Assessments:

- Only excess cancer risk and chronic and acute noncancer hazard index from TACs that have RBCs published by the DEQ will be assessed. Table 7-2 presents a list of the TACs emitted from the facility TEUs that do not have RBCs published by the DEQ. **As a result, the Level 3 Risk Assessment does not assess cancer and/or noncancer risk associated with those TACs that do not yet have an associated RBC. However, the development of RBCs generally has a level of conservatism that may overestimate cancer and/or noncancer risk from TACs with known RBCs.**
- Temporal variability in meteorological conditions (e.g. ambient temperature and wind speed) and kiln operating conditions (kiln drying temperature, intake airflow) influence how emissions are released (i.e., plume rise) from the lumber kilns over the course of the batch drying time. Because emissions from the kiln are estimated using the kiln high temperature setpoint, plume rise from the kiln is also estimated using this temperature. The best available ambient temperature and wind data from the meteorological dataset used for the dispersion model were used to calculate plume rise from the kilns, as shown in Table 4-5. **As a result of the temporal variability of plume rise from the lumber kilns, the Level 3 Risk Assessment may over- or under-predict risk from the kilns during periods of variable meteorological and kiln operational conditions.**
- Emissions data for lumber kilns are representative of emissions over the duration of the drying cycle for a given kiln temperature setpoint. Due to the nature of the drying cycle, the temperature within the kiln will vary, but emissions are estimated based on the highest kiln setpoint temperature. Testing data demonstrates that the kiln emissions will decrease with decreasing temperature. **As a result of the varying temperature, the lumber kilns over the course of the drying cycle, and resulting emissions, the Level 3 Risk Assessment may over- or under-predict risk from the kilns.**

8 Modeling Results

Preliminary results of the short-term AAQS analysis and the Level 3 Risk Assessment using the proposed model inputs, as described in Section 2 through 7, are provided below.

8.1 AAQS Modeling Results

Results of the short-term AAQS modeling analysis for the $PM_{2.5}$ 24-hour are presented in Table 8-1. As shown in Table 8-1, the design value for $PM_{2.5}$ 24-hour is below the AAQS of 35 ug/m^3. These results show the facility does not cause or contribute to a new exceedance of the short-term $PM_{2.5}$ AAQS.

8.2 Level 3 Risk Assessment Results

A summary of the modeled dispersion factors for each significant TEU is provided in Table 8-2 and Table 8-3 for the MC SU scenario and the Scrubber SU scenario, respectively. The modeled concentrations at the location of the maximum predicted risk for each modeled TEU are presented in Table 8-4 and Table 8-5 for the MC SU scenario and the Scrubber SU scenario, respectively.

The highest excess cancer risk, chronic and acute noncancer risk between the two scenarios were compared to the current RALs published in OAR 340-245-8010 Table 1. As shown in Table 1-2 the worst-case predicted excess cancer risk, chronic and acute noncancer hazard indices between the two scenarios are below the TBACT RAL for existing sources per OAR 340-245-8010 Table 1.

9 Closing

MFA looks forward to working with the DEQ throughout the permit application process. If there are any questions or comments regarding this document, please contact Andrew Rogers, Project Meteorologist with MFA at (503) 407-6406.

References

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Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Figures

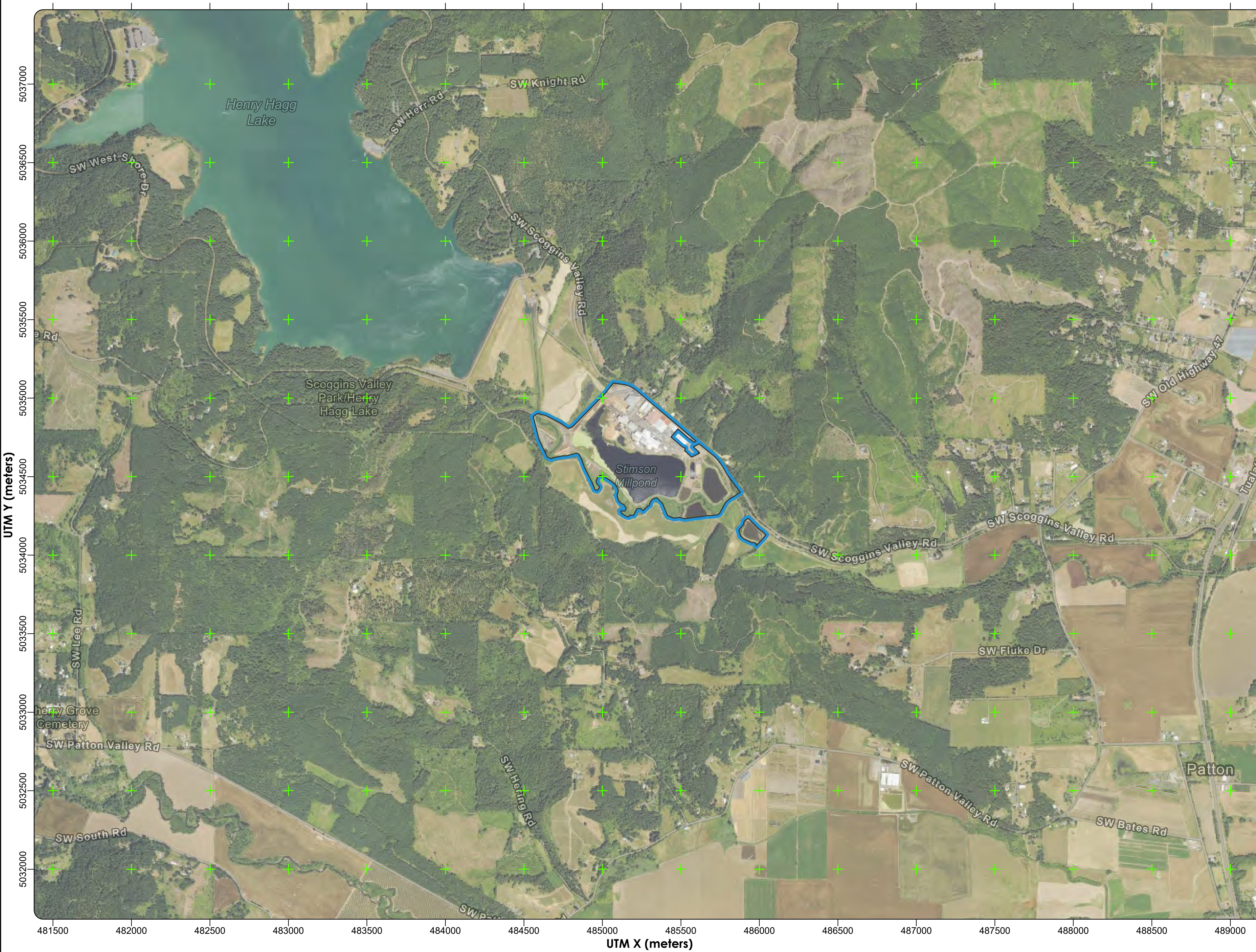

Figure 3-1
Aerial Imagery of Facility

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

Exposure Assessment Boundary

UTM 500-Meter Grid Mark

Key Map

Note
UTM = universal transverse mercator projection.

0 600
Meters

Data Sources
Aerial photography from the U.S. Department of Agriculture; reference labels from Esri.

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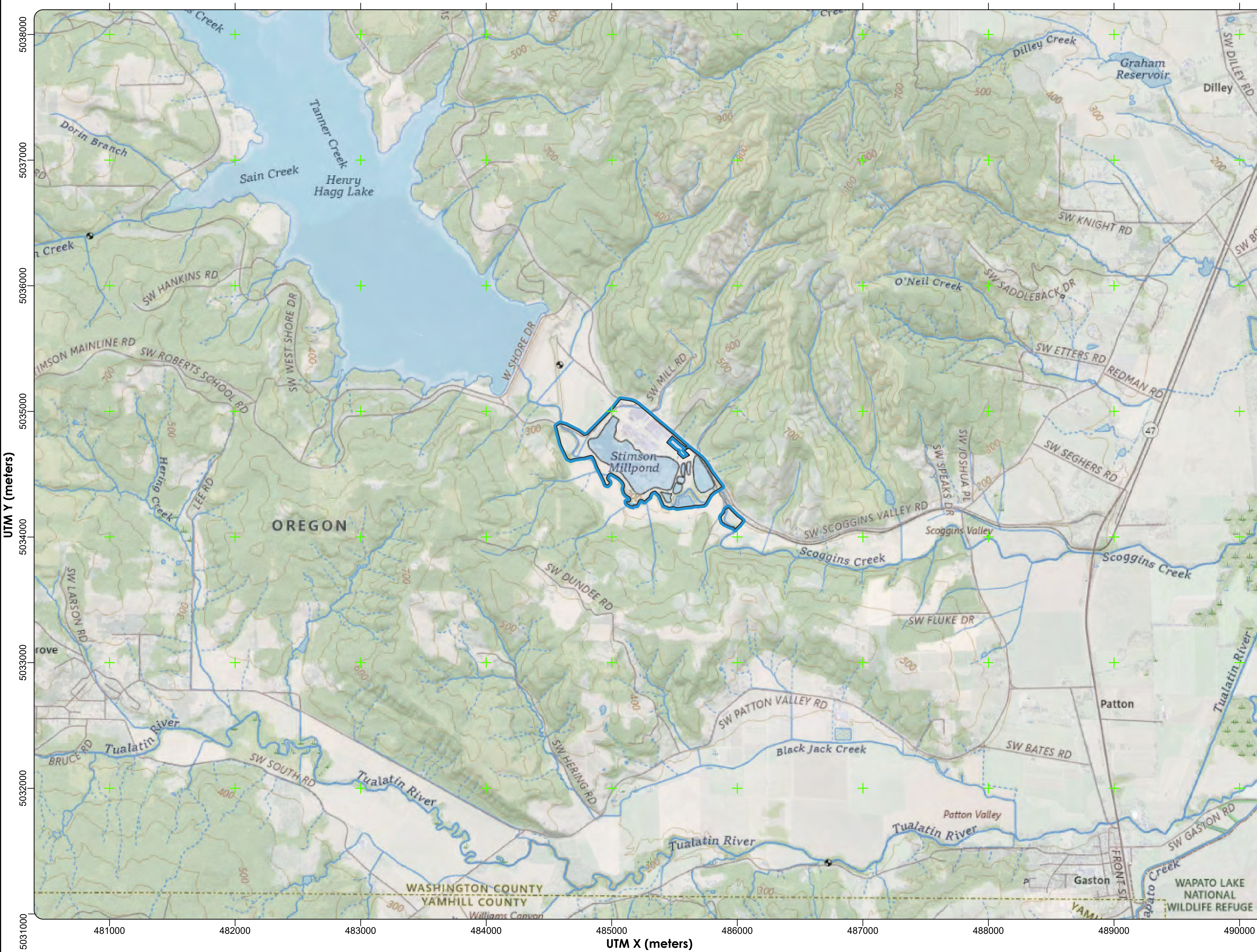
Project: M0066.03.011
Produced By: sturner
Reviewed By: arogers
Print Date: 3/21/2025
Path: X:\0066.03 Stimson Timber\011\Pro\M0066_03_011_004.aprx\Fig 2-1 Aerial Photography of Facility

Figure 3-2
Local Topography

Stimson Lumber Company
Forest Grove Complex
Gaston, OR



Legend

Exposure Assessment Boundary

UTM 1-Kilometer Grid Mark

Key Map

Note
UTM = universal transverse mercator projection.

0 700
Meters

Data Source
Topographic basemap from Esri.

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Path: X:\0066.03 Stimson Timber\011\Pro\M0066.03_011_004.aprx\ Fig 2-2 Local Topography
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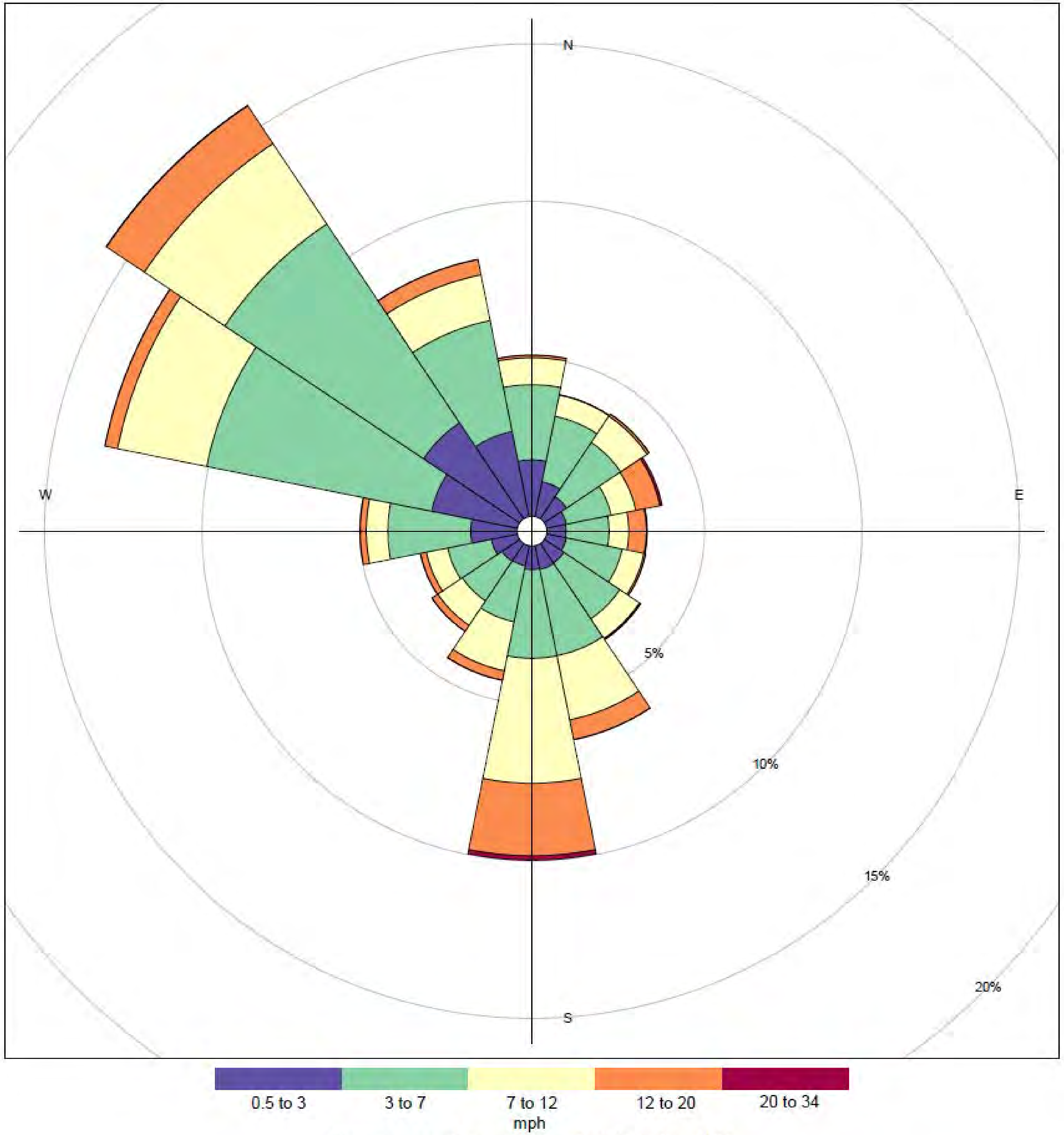
Project: M0066.03.011

Figure 5-1
Wind Rose

Stimson Lumber Company
Forest Grove Complex
Gaston, OR



Frequency of counts by wind direction (%)

Key Map

Note
mph = miles per hour.

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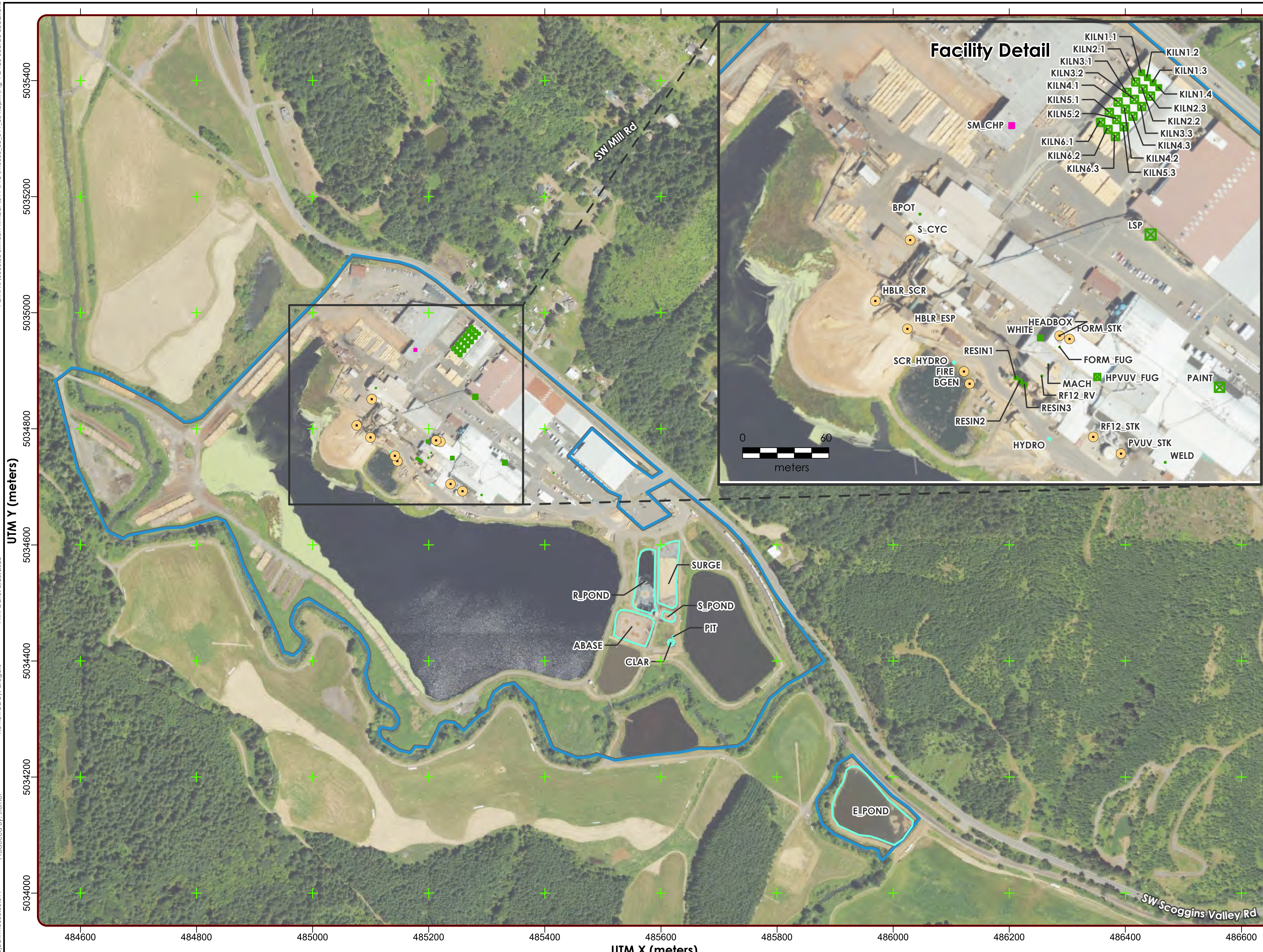
Path: X:\0066.03 Stimson Timber\011\Pro\M0066_03_011_004.aprx\Fig 4-1 Wind Rose
Print Date: 3/21/2025
Reviewed By: arogers
Produced By: sturner
Project: M0066.03.011

Figure 5-2
TEU Source Locations

Stimson Lumber Company
Forest Grove Complex
Gaston, OR



Legend

- Proposed Volume Source
- Existing Volume Source
- Existing Area Source
- Existing Point Source
- Exposure Assessment Boundary
- UTM 50-Meter Grid Mark

Key Map

Notes
TEU = toxics emission unit.
UTM = universal transverse mercator projection.

0 200
Meters

Data Source
Aerial photography from the U.S. Department of Agriculture

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Project: M0066.03.011

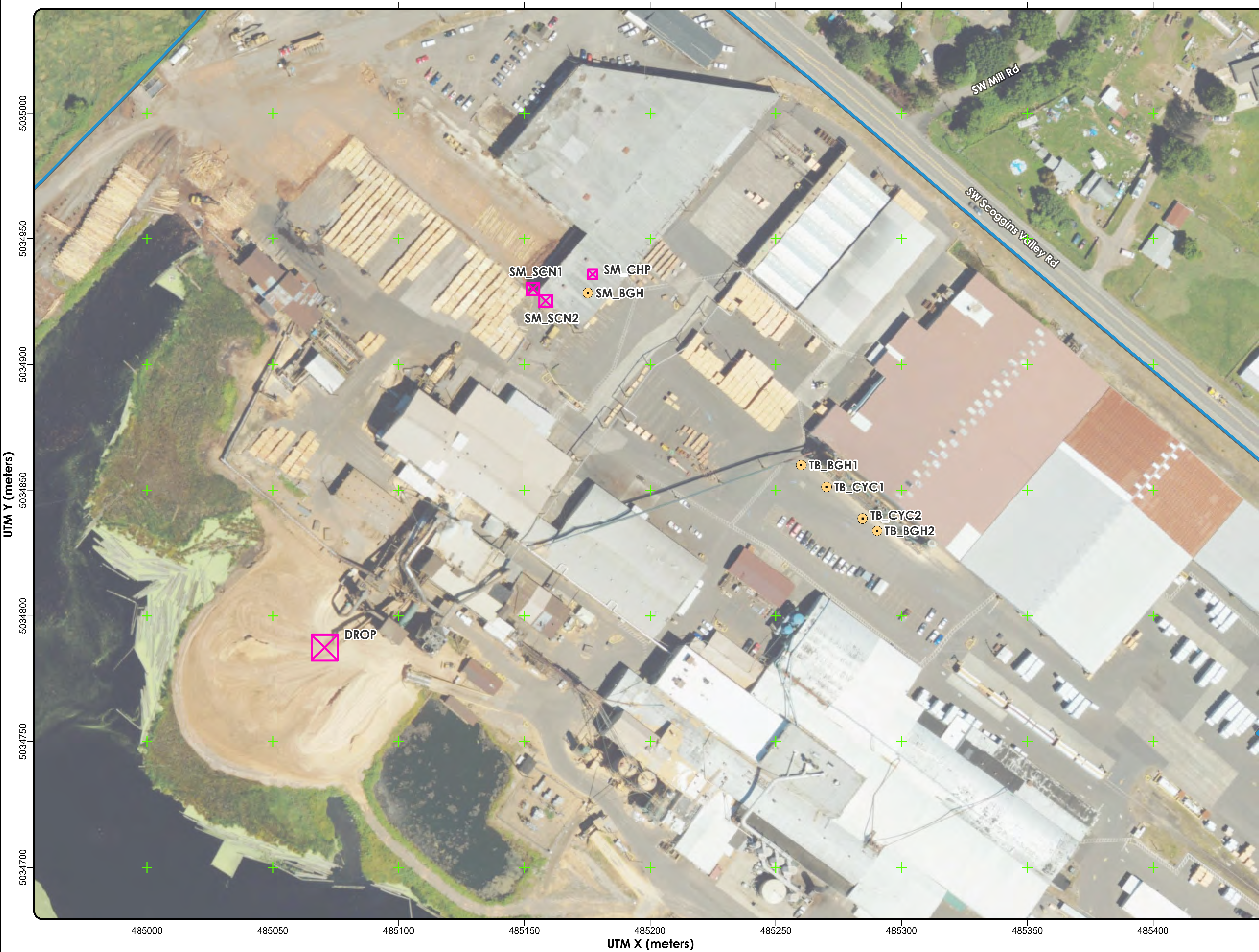

Figure 5-3
Proposed $PM_{2.5}$ Modeling Source Locations

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

- Proposed Point Source
- Proposed Volume Source
- Exposure Assessment Boundary
- UTM 50-Meter Grid Mark

Key Map

Notes

$PM_{2.5}$ = particulate matter with an aerodynamic diameter of less than or equal to 2.5 microns.
UTM = universal transverse mercator projection.

0 30
Meters

Data Source
Aerial photography from the U.S. Department of Agriculture

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Path: X:\0066.03 Stimson Timber\011\Pro\M0066_03_011_004.aprx\Fig 4-3 PM2.5 Modeling Source Locations
Print Date: 3/25/2025
Reviewed By: arogers
Produced By: sturner
Project: M0066.03.011

Figure 5-4
Proposed Downwash Structure Locations

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

- Proposed Downwash Structure
- Existing Downwash Structure
- Exposure Assessment Boundary
- UTM 50-Meter Grid Mark

Key Map

Note
UTM = universal transverse mercator projection.

0 40
Meters

Data Sources
Aerial photography from the U.S. Department of Agriculture; reference labels from Esri.

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Path: X:\0066.03 Stimson Timber\011\Pro\M0066.03_011_004.aprx\Fig 4-4 Proposed Downwash Structure Locations
Print Date: 3/25/2025
Reviewed By: arogers
Produced By: sturner
Project: M0066.03.011

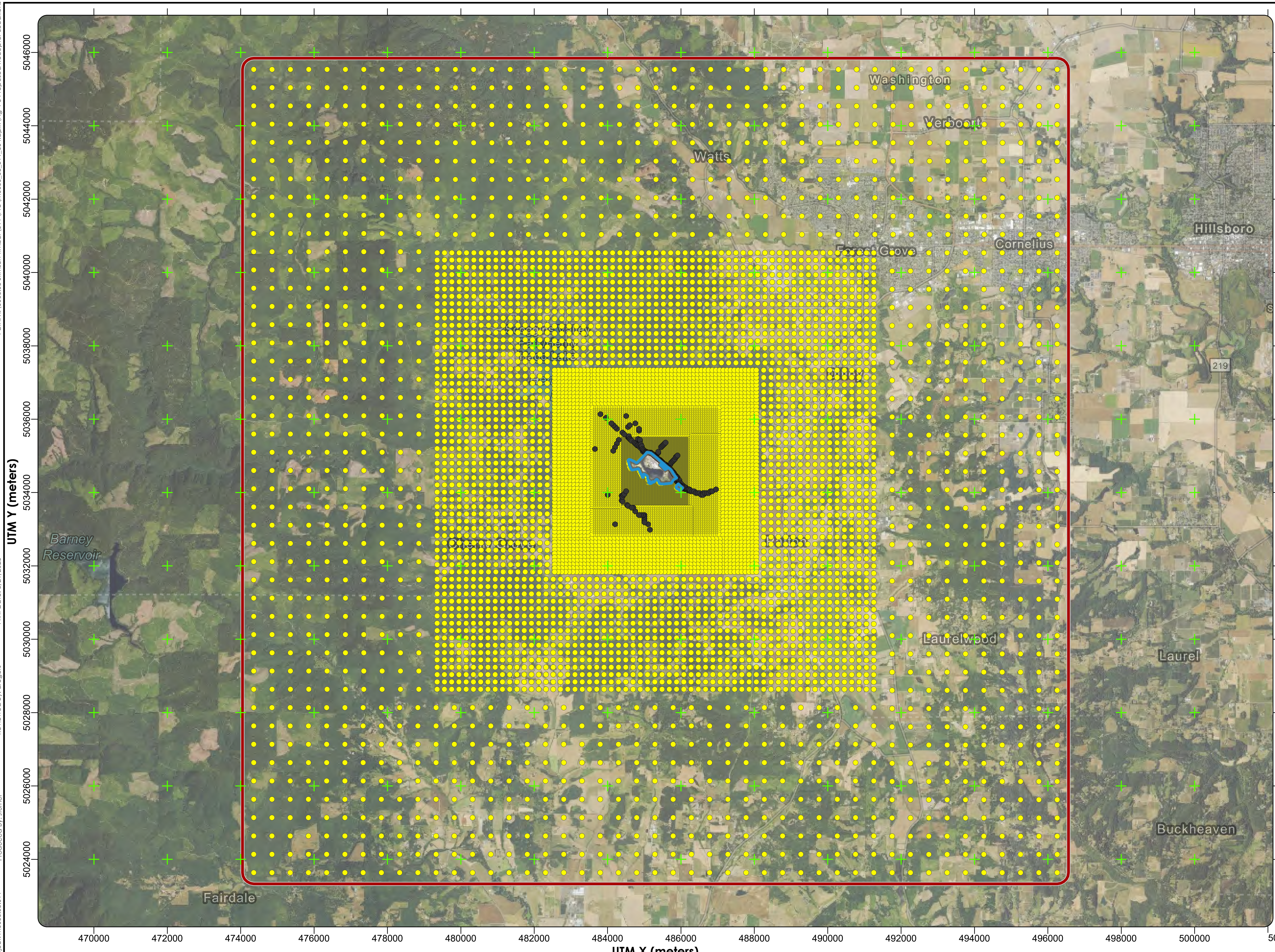

Figure 5-5
Proposed Receptor Locations

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

- Proposed Receptor
- Proposed Receptor in Right-of-Way (CAO Only)
- Proposed Modeling Domain Extent
- Exposure Assessment Boundary
- UTM 2-Kilometer Grid Mark

Key Map

Notes
For PM2.5 24-hour NAAQS modeling, all receptors were considered.
CAO = Cleaner Air Oregon.
PM 2.5 = fine particulate matter.
NAAQS = national ambient air quality standards.
UTM = universal transverse mercator projection.

0 2,000
Meters

Data Sources
Aerial photography from the U.S. Department of Agriculture; reference labels from Esri.

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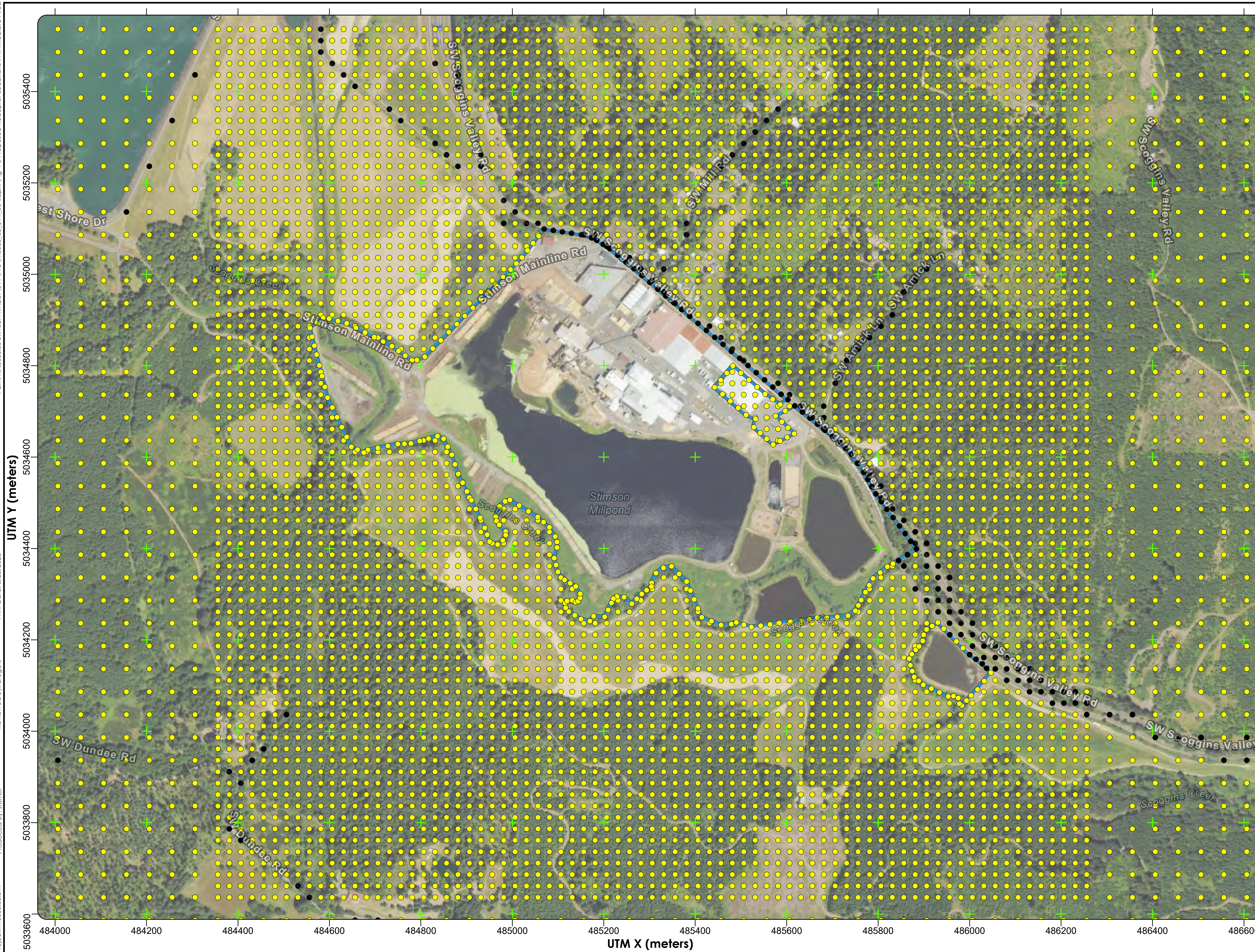
Path: X:\0066.03 Stimson Timber\011\Pro\M0066.03_011_004.aprx\Fig 4-5 Proposed Receptor Locations

Figure 5-6
Proposed Receptor Locations in Immediate Area

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

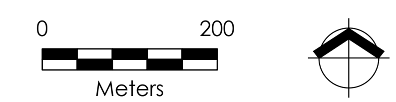


Legend

- Proposed Receptor
- Proposed Receptor in Right-of-Way (CAO Only)
- Exposure Assessment Boundary
- UTM 200-Meter Grid Mark

Key Map

Notes
For $PM_{2.5}$ 24-hour NAAQS modeling, all receptors were considered.
CAO = Cleaner Air Oregon.
$PM_{2.5}$ = fine particulate matter.
NAAQS = national ambient air quality standards.
UTM = universal transverse mercator projection.



Data Sources
Aerial photography from the U.S. Department of Agriculture; reference labels from Esri.

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Path: X:\0066.03 Stimson Timber\011\Pro\M0066_03_011_004.aprx\Fig 4-6 Proposed Receptor Locations in Immediate Area
Print Date: 3/25/2025
Reviewed By: arogers
Produced By: sturner
Project: M0066.03.011

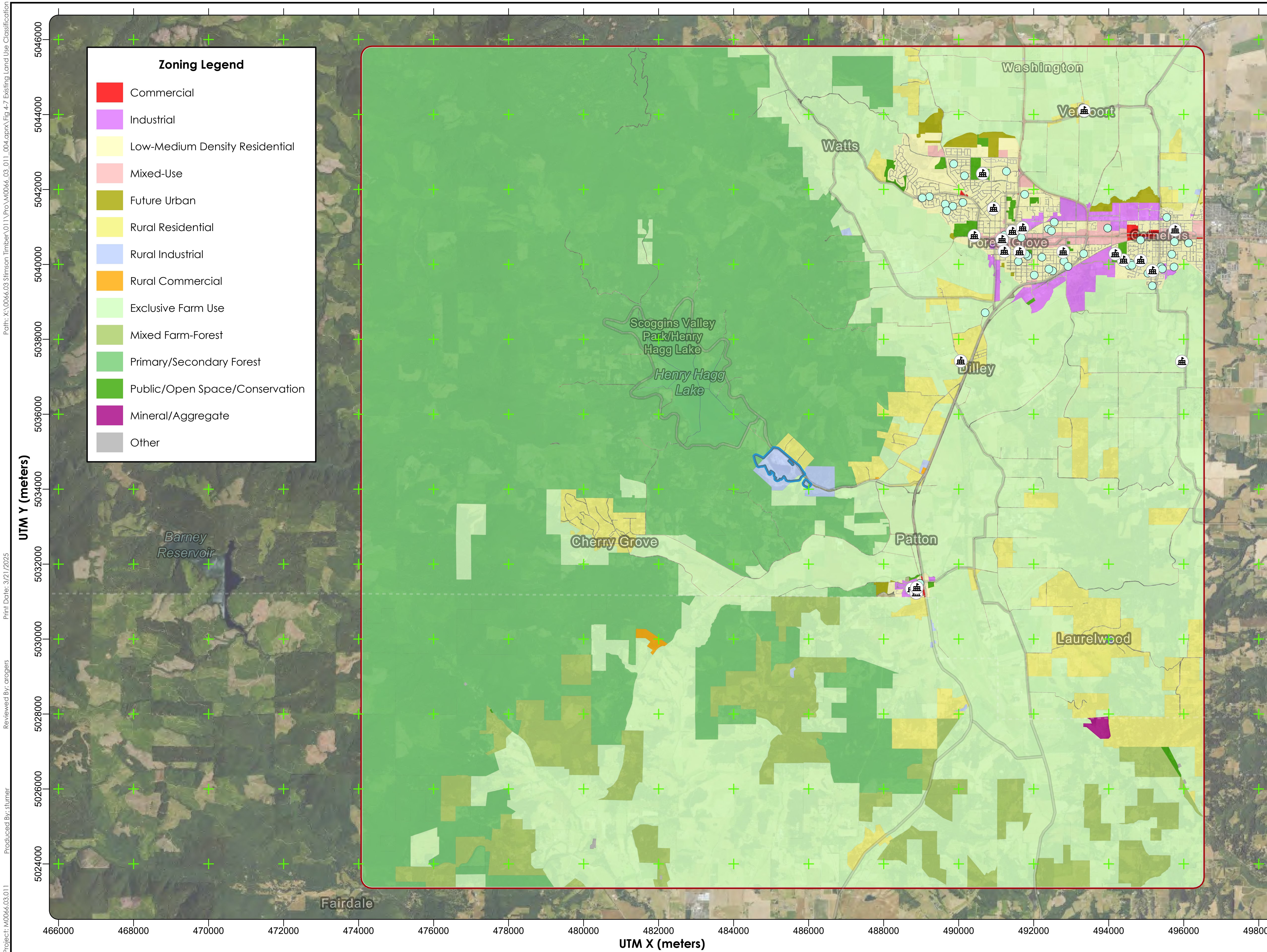

Figure 7-1
Existing Land Use Zoning Classifications

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

School Location (2015-16)
Early Learning Providers (2020)
Exposure Assessment Boundary
Proposed Modeling Domain Extent
UTM 2-Kilometer Grid Mark

Key Map

Note
UTM = universal transverse mercator projection.

0 2,000
Meters

Data Sources
Zoning from the Oregon Department of Land Conservation and Development (2023); school locations from Oregon Health Authority; early learning providers from Oregon Department of Education; aerial photography from the U.S. Department of Agriculture; reference labels from Esri.

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Project: M0066.03.011 Produced By: sturner Reviewed By: arogers Print Date: 3/21/2025 Path: X:\M0066.03 Stimson Timber\011\Pro\M0066_03_011_004.aprx\Fig 4-7 Existing Land Use Classification

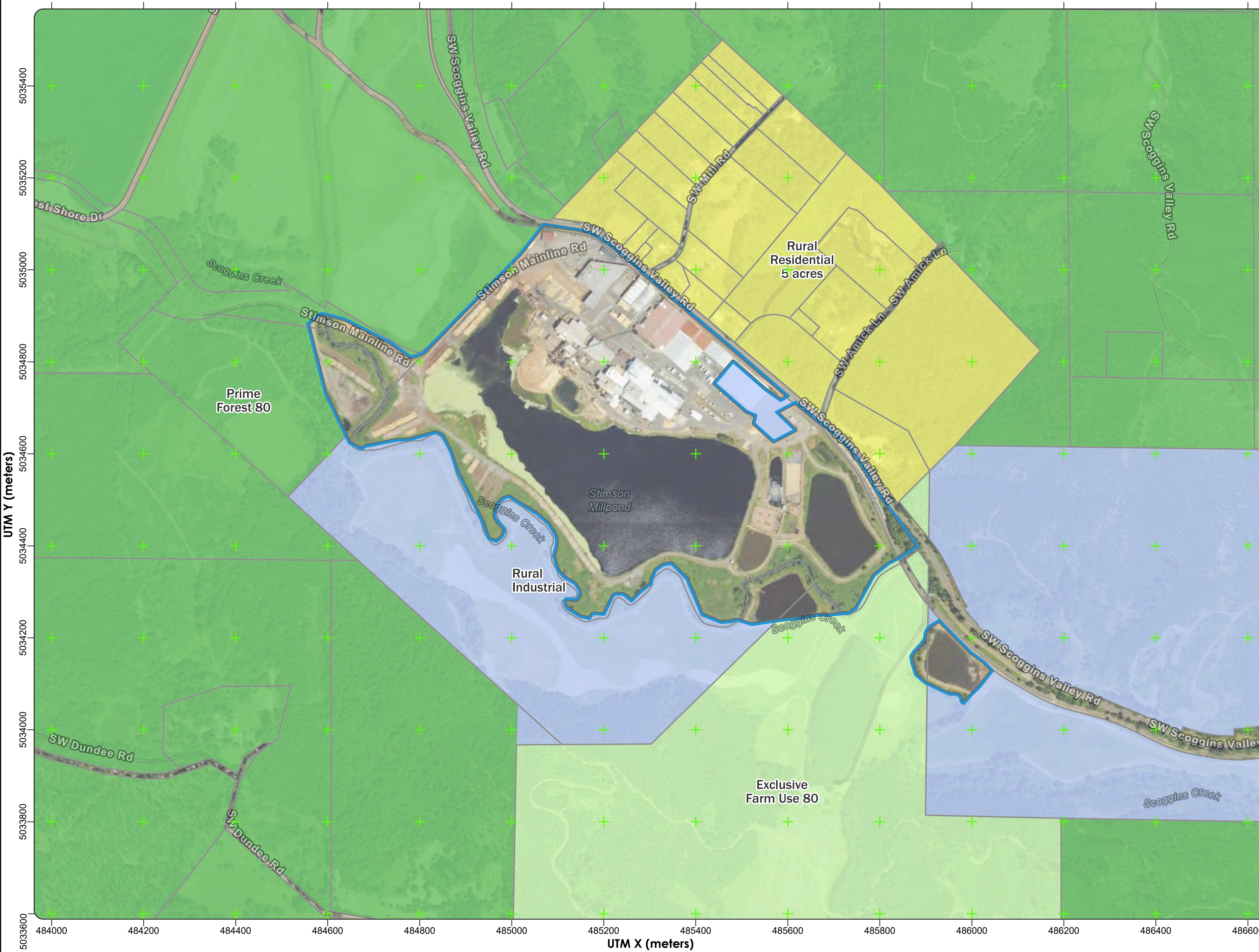

Figure 7-2
Existing Land Use Zoning Classifications in the Immediate Area

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

Exposure Assessment Boundary
Tax Lot
UTM 200-Meter Grid Mark

Zoning

Rural Residential
Rural Industrial
Exclusive Farm Use
Primary/Secondary Forest

Key Map

Note
UTM = universal transverse mercator projection.

0 200
Meters

Data Sources
Zoning from the Oregon Department of Land Conservation and Development (2023); aerial photography from the U.S. Department of Agriculture; tax lots from Oregon Metro and Yamhill County.

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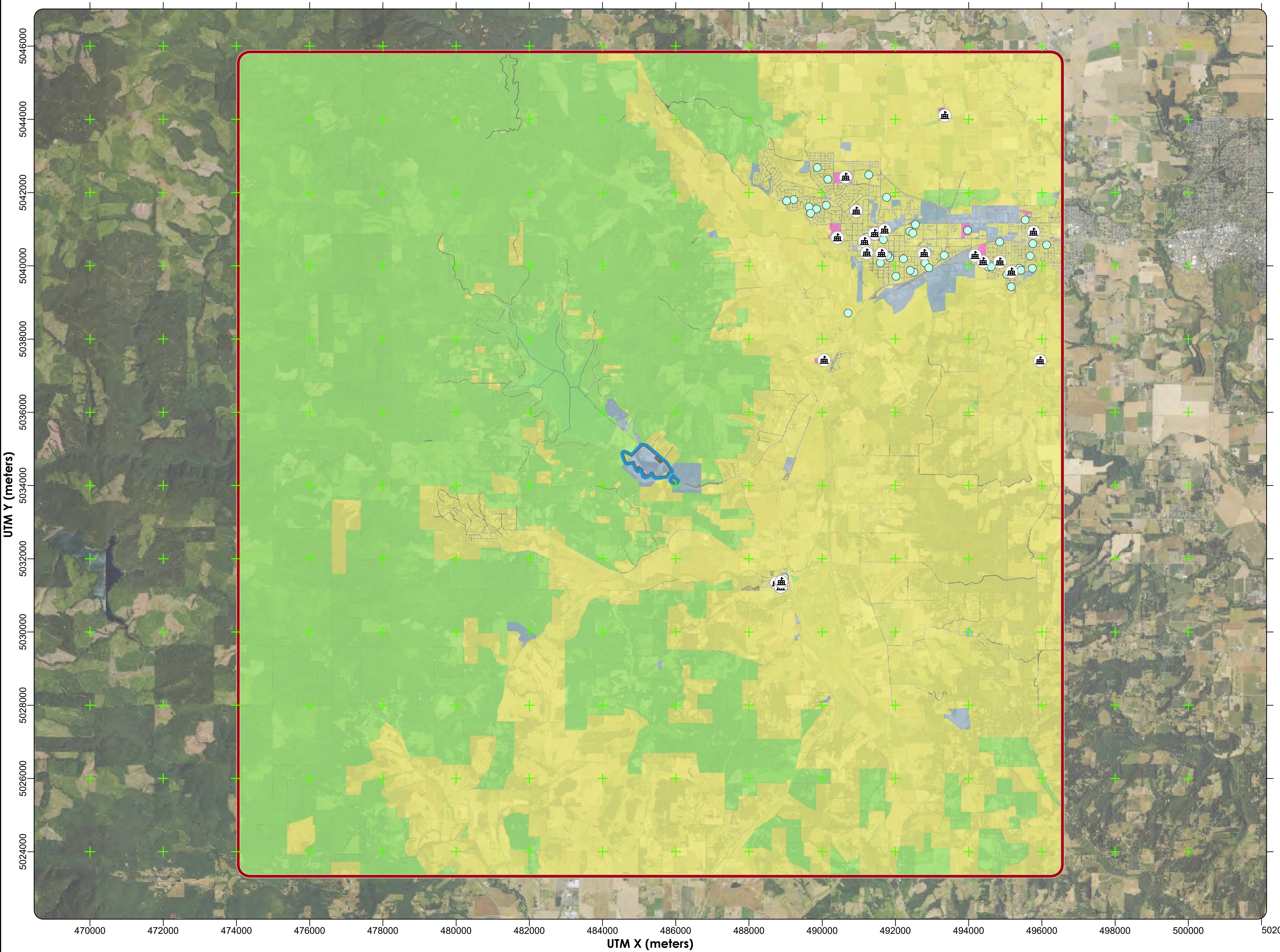
Project: M0066.03.011 Produced By: sturner Reviewed By: arogers Print Date: 3/21/2025 Path: X:\0066.03 Stimson Timber\011\Pro\M0066_03_011_004.aprx\Fig 4-8 Existing Land Use Classification Immediate Area

Figure 7-3
Proposed Exposure Categorization

Stimson Lumber Company
Forest Grove Complex
Gaston, OR



Legend

- School Location (2015-16)
- Early Learning Providers (2020)
- Exposure Assessment Boundary
- Proposed Modeling Domain Extent
- UTM 2-Kilometer Grid Mark

Proposed Exposure Classification

- Acute Only
- Child
- Residential
- Worker

Key Map

Notes

Existing land use classifications revised to reflect the risk-based concentration categories presented in Oregon Administrative Rule 340-245-8040 Table 4.
Tax lot land use is used for classifications where zoning data are unavailable and where tax lot land use is more conservative.
UTM = universal transverse mercator projection.

0 2,000
Meters

Data Sources

Aerial photography from the U.S. Department of Agriculture; schools from Oregon Health Authority; early learning facilities from the Oregon Department of Education.

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Path: X:\0066.03 Stimson Timber\011\Pro\M0066.03_011_004.aprx\Fig 7-3 Proposed Exposure Categorization
Print Date: 10/7/2025
Reviewed By: arogers
Produced By: sturner
Project: M0066.03.011

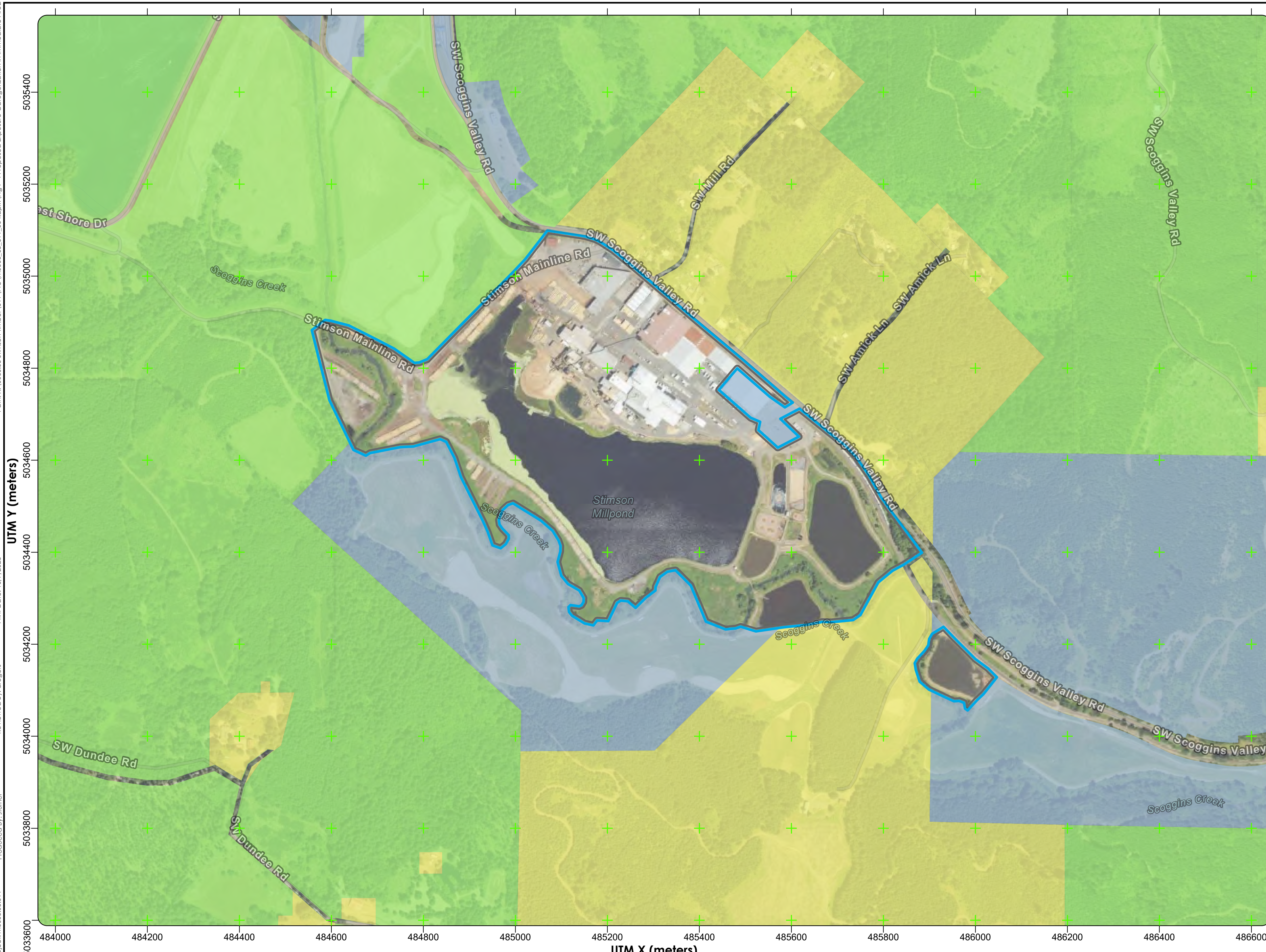

Figure 7-4
Proposed Exposure Categorization in the Immediate Area

Stimson Lumber Company
Forest Grove Complex
Gaston, OR

Legend

Exposure Assessment Boundary

UTM 200-Meter Grid Mark

Proposed Exposure Classification

Acute Only

Residential

Worker

Key Map

Notes

Existing land use classifications revised to reflect the risk-based concentration categories presented in Oregon Administrative Rule 340-245-8040 Table 4.

Tax lot land use is used for classifications where zoning data is unavailable and where tax lot land use is more conservative.

UTM = universal transverse mercator projection.

0 200
Meters

Data Sources

Aerial photography from the U.S. Department of Agriculture.

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Project: M0066.03.011 Produced By: sturner Reviewed By: arogers Print Date: 10/7/2025 Path: X:\0066.03 Stimson Timber\011\Pro\M0066.03_011_004.aprx\Fig 7-4 Proposed Exposure Categorization in Immediate Area

Tables

Table 4-1
AAQS Model Emission Rates and Level 3 RA Model Release Parameters
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Point Sources

Model ID	Model Source Description	Model Assessment? (Yes/No)		UTM Coordinates [1]		Stack Orientation [1]	Base Elevation [2] (m)	Release Height [1] (m)	Stack Diameter [1] (m)	Exit Velocity [1] (m/s)	Exit Flowrate [a] (m^3/s)	Exit Temperature [1] (K)	$PM_{2.5}$ Model Emission Rate	
		Level 3 RA	$PM_{2.5}$ 24-hr	Easting	Northing								(lb/day)	(g/s) [b]
HBLR_SCR	Comingled boiler and fuel dryer exhuast scrubber stack	Yes	No	485,074.8	5,034,806.4	Vertical	67.1	12.8	1.52	11.03	20.11	322.0	--	--
HBLR_ESP	Comingled boiler exhaust ESP stack	Yes	No	485,098.6	5,034,785.7	Vertical	66.2	18.3	2.29	12.24	50.25	506.9	--	--
HBLR_MC	Single Boiler exhaust MC Control through ESP stack	Yes	No	485,098.6	5,034,785.7	Vertical	66.2	18.3	2.29	12.24	50.25	334.4	--	--
RF12_STK	Scruber 5 controlling refiners	Yes	No	485,236.5	5,034,705.5	Vertical	65.2	13.7	0.76	4.11	1.87	323.7	--	--
PVUV_STK	Press vent exhaust stack	Yes	No	485,257.1	5,034,693.1	Vertical	66.2	13.7	2.74	6.42	37.95	313.7	--	--
FORM_STK	Forming Line Exhaust Vent	Yes	No	485,218.9	5,034,778.2	Horizontal	65.8	15.4	0.20	14.84	0.49	337.0	--	--
HEADBOX	Headbox Vent	Yes	No	485,211.5	5,034,780.6	Vertical	65.6	14.9	0.69	8.36	3.11	Ambient	--	--
S_CYC	Green chipper cyclone	Yes	No	485,100.7	5,034,851.7	Vertical	64.7	6.7	0.30	15.24	1.11	Ambient	--	--
FIRE	Emergency Fire Pump	Yes	No	485,140.6	5,034,754.1	Vertical	64.9	1.8	0.08	47.71	0.22	449.8	--	--
BGEN	Emergency Diesel Generator	Yes	No	485,144.8	5,034,745.0	Vertical	64.6	2.1	0.08	47.71	0.22	449.8	--	--
EGEN01	Proposed diesel emergency generator	Yes	No	485,145.0	5,034,796.6	Vertical	64.8	1.9	0.13	50.38	0.64	806.2	--	--
SM_BGH	Proposed 95-20 Hew Saw Baghouse	No	Yes	485,175.3	5,034,928.5	Vertical	66.2	6.1	1.27	16.76	21.27	Ambient	2.76 [3]	0.014
TB_BGH1	Proposed Truck Bin Baghouse 1	No	Yes	485,260.1	5,034,860.0	Horizontal	66.9	13.7	0.52	15.24	3.18	Ambient	0.32 [3]	0.002
TB_BGH2	Proposed Truck Bin Baghouse 2	No	Yes	485,290.2	5,034,833.9	Horizontal	66.9	13.7	0.52	15.24	3.18	Ambient	0.32 [3]	0.002
TB_CYC1	Proposed Truck Bin Cyclone 1	No	Yes	485,270.1	5,034,851.3	Vertical	66.9	23.3	1.37	5.08	7.51	Ambient	5.46 [3]	0.029
TB_CYC2	Proposed Truck Bin Cyclone 2	No	Yes	485,284.5	5,034,838.7	Vertical	66.9	22.4	1.37	5.08	7.51	Ambient	5.46 [3]	0.029

Discrete Volume Sources

Model ID	Model Source Description	Model Assessment? (Yes/No)		UTM Coordinates [1]		On or Adjacent to a Building?	Base Elevation [2] (m)	Release Height (m)	Length of Side (m)	Initial Lateral Dimension [c] (m)	Initial Vertical Dimension (m)	$PM_{2.5}$ Model Emission Rate	
		Level 3 RA	$PM_{2.5}$	Easting	Northing							(lb/day)	(g/s) [b]
KILN1_1	Kiln 1 (1 of 4)	Yes	No	485,272.4	5,034,975.8	Yes	67.4	10.69 [5]	3.66	0.85	9.94 [5]	--	--
KILN1_2	Kiln 1 (2 of 4)	Yes	No	485,276.7	5,034,972.2	Yes	67.5	10.69 [5]	3.66	0.85	9.94 [5]	--	--
KILN1_3	Kiln 1 (3 of 4)	Yes	No	485,280.9	5,034,968.4	Yes	67.5	10.69 [5]	3.66	0.85	9.94 [5]	--	--
KILN1_4	Kiln 1 (4 of 4)	Yes	No	485,285.2	5,034,964.7	Yes	67.5	10.69 [5]	3.66	0.85	9.94 [5]	--	--
KILN2_1	Kiln 2 (1 of 3)	Yes	No	485,268.0	5,034,969.0	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN2_2	Kiln 2 (3 of 3)	Yes	No	485,273.5	5,034,963.7	Yes	67.5	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN2_3	Kiln 2 (2 of 3)	Yes	No	485,279.0	5,034,958.5	Yes	67.5	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN3_1	Kiln 3 (1 of 3)	Yes	No	485,261.5	5,034,961.3	Yes	67.5	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN3_2	Kiln 2 (3 of 3)	Yes	No	485,267.0	5,034,956.0	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN3_3	Kiln 2 (2 of 3)	Yes	No	485,272.5	5,034,950.7	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN4_1	Kiln 2 (1 of 3)	Yes	No	485,255.0	5,034,954.0	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN4_2	Kiln 2 (3 of 3)	Yes	No	485,260.4	5,034,948.8	Yes	67.3	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN4_3	Kiln 2 (2 of 3)	Yes	No	485,265.9	5,034,943.5	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN5_1	Kiln 2 (1 of 3)	Yes	No	485,248.4	5,034,946.4	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN5_2	Kiln 2 (3 of 3)	Yes	No	485,253.9	5,034,941.1	Yes	67.5	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN5_3	Kiln 2 (2 of 3)	Yes	No	485,259.4	5,034,935.8	Yes	67.5	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN6_1	Kiln 6 (1 of 3)	Yes	No	485,242.0	5,034,939.0	Yes	67.4	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN6_2	Kiln 6 (3 of 3)	Yes	No	485,247.5	5,034,933.7	Yes	67.5	12.91 [5]	5.49	1.28	12.01 [5]	--	--
KILN6_3	Kiln 6 (2 of 3)	Yes	No	485,253.0	5,034,928.4	Yes	67.6	12.91 [5]	5.49	1.28	12.01 [5]	--	--
WHITE	Whitewater Chest (open bay door)	Yes	No	485,197.3	5,034,778.9	Yes	65.5	7.47 [7]	3.66	0.85	6.95 [d]	--	--
MACH	Machine Chest Vent	Yes	No	485,203.3	5,034,759.3	Yes	65.6	4.42 [7]	0.30	0.07	4.11 [d]	--	--
RF12_RV	Refiner - Rotary Valve Stack	Yes	No	485,198.3	5,034,750.7	Yes	65.5	7.47 [7]	0.30	0.07	6.95 [d]	--	--
HPVUV_FUG	Press fugitive emissions release	Yes	No	485,239.5	5,034,750.1	Yes	65.8	9.45 [7]	4.70	1.09	8.79 [d]	--	--
FORM_FUG	Forming line fugitive emissions release	Yes	No	485,211.5	5,034,772.3	Yes	65.7	4.42 [7]	0.46	0.11	4.11 [d]	--	--
GAS	Gas Storage Tank	Yes	No	485,414.0	5,034,724.5	No	65.4	2.44 [1]	0.30	0.07	0.57 [e]	--	--
RESIN1	Resin Tank 1	Yes	No	485,179.0	5,034,749.5	Yes	65.2	7.47 [7]	0.91	0.21	6.95 [d]	--	--
RESIN2	Resin Tank 2	Yes	No	485,182.3	5,034,746.9	Yes	65.4	7.47 [7]	0.91	0.21	6.95 [d]	--	--
RESIN3	Resin Tank 3	Yes	No	485,185.8	5,034,744.3	Yes	65.8	7.47 [7]	0.91	0.21	6.95 [d]	--	--
PAINT	Paintline Top & Bottom Coat	Yes	No	485,330.2	5,034,742.4	Yes	65.7	4.66 [7]	7.05	1.64	4.22 [d]	--	--
WELD	Welding Emissions	Yes	No	485,289.9	5,034,686.7	Yes	65.7	4.04 [7]	0.61	0.14	3.76 [d]	--	--
BPOT	Vent above babbitt pots	Yes	No	485,107.9	5,034,870.9	Yes	64.9	7.16 [7]	0.61	0.14	6.66 [d]	--	--
SM_DROP	Proposed Sawmill Residuals Drop	No	Yes	485,070.7	5,034,787.5	No	69.4	4.57 [7]	10.3	2.39	1.06 [e]	0.072 [3]	3.78E-04
SM_SCN1	Proposed Screen 1	No	Yes	485,153.5	5,034,930.0	No	66.2	4.57 [7]	4.91	1.14	4.25 [d]	1.16 [3]	6.07E-03
SM_SCN2	Proposed Screen 2	No	Yes	485,158.4	5,034,925.3	No	66.2	4.57 [7]	4.9	1.14	4.25 [d]	1.16 [3]	6.07E-03
SM_CHP	Proposed Overs Chipper	Yes	Yes	485,177.1	5,034,936.0	No	66.2	4.57 [7]	3.7	0.85	4.25 [d]	0.17 [3]	9.07E-04

Area Sources

Model ID	Model Source Description	Model Assessment? (Yes/No)		UTM Coordinates [1]		Area Source Geometry	Base Elevation [2] (m)	Source Area [6] (m^2)	Source Diameter (m)	On or Adjacent to a Building?	Release Height AGL (m)	Number of Vertices
		Level 3 RA	$PM_{2.5}$	Easting	Northing							
SCR_HYDRO	Exposed area above boiler scrubber hydrosieve	Yes	No	485,132.2	5,034,760.8	Area	65.0	2.20	[8]	No	0	4 [6]
HYDRO	Exposed area above hydrosieves	Yes	No	485,202.9	5,034,704.2	Area	65.3	2.20	[8]	No	0	4 [6]
CLAR	WWTP-Secondary clarifier	Yes	No	485,616.0	5,034,432.2	Circular	61.7	89.4	5.33	No	0	-- [9]
PIT	WWTP-Sludge pit opening	Yes	No	485,620.2	5,034,442.6	Circular	61.3	3.60	1.07	No	0	-- [9]
S_POND	WWTP-Sludge pond	Yes	No	485,599.9	5,034,475.4	Polygon	63.2	317	[8]	No	0	9 [6]
R_POND	WWTP-Reuse pond	Yes	No	485,588.9	5,034,590.6	Polygon	62.7	3,340	[8]	No	0	15 [6]
SURGE	WWTP-Surge pond	Yes	No	485,630.3	5,034,606.2	Polygon	62.8	3,496	[8]	No	0	16 [6]
ABASE	WWTP-Aeration basin	Yes	No	485,571.8	5,034,425.4	Polygon	63.1	3,099	[8]	No	0	14 [6]
E_POND	WWTP-East pond	Yes	No	485,893.9	5,034,151.6	Polygon	62.1	10,784	[8]	No	0	18 [6]

Notes

K = kelvin; m = meter; m/s = meters per second; m3/s = cubic meters per second; UTM = Universal Transverse Mercator; AGL = above ground level..

[a] Exit flowrate (m^3/s) = (π/4) x (stack diameter [m])^2 x (exit velocity [m/s])

[b] Emission rate (g/s) = (daily emissions estimate [lb/day]) x (453.592 g/lb) / (24 hrs/day) / (3,600 s/hr)

[c] Initial lateral dimension (m) = (length of side [m] / (4.3) (4)

[d] Initial vertical dimension (m) = (building height [m] / (2.15) (4)

[e] Initial vertical dimension (m) = (vertical dimension [m] / (4.3) (4)

References

[1] Value based on information provided by Stimson Lumber Company.

[2] Base elevation derived from the US Geological Survey National Elevation Dataset downloaded and processed in AERMET.

[3] See Attachment A of the Construction ACDP application.

[4] See "User's Guide for the AMS/EPA Regulatory Model (AERMOD)" dated November 2024.

[5] Release height and initial vertical dimension were adjusted for thermal buoyancy using methods from Appendix 12, sub Appendix I, Plume-Rise Methodology for Slag Pits Based Upon Work by John Irwin (EPA; 2003). See Table 4-5, Kiln Thermal Buoyancy Effects Calculations.

[6] Area of source and number of vertices identified in AERMOD View software.

[7] See "Users Guide for the AMS/EPA Regulatory Model (AERMOD)," EPA-454/B-18-001 dated April 2018. Assumes release height for elevated volume source is half of the building height.

[8] Source is not a circular area source type. Therefore, there's no diameter.

[9] Circular area source type, therefore, there are no vertices.

Table 4-2
Annual TAC Emission Rates
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Annual Emission Estimates – Proposed Project Impacted TEUs																							
			Hogged Fuel Boiler (Normal Operations)				Hogged Fuel Boiler (SU Operations)				Fuel Dryer		Total Scrubber				Kilns Total		Kiln 1 [1]		Kilns 2-6 [1]		Existing Stud Mill Cyclone (S-182)		Proposed Sawmill Cyclone	
			ESP Control		Scrubber Control		Multi-Clone Control		Scrubber Control				Normal Operation [1]		SU Operation [2]											
			(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [b]	(g/s) [a]	(lb/yr) [c]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [d]	(g/s) [a]	(lb/yr) [e]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]
Model ID	--	--	HBLR_ESP		--		HBLR_MC		--		--		HBLR_SCR		HBLR_SCR_SU		--		KILN1.1 -1.4		KILN2.1 - 6.3		S_CYC		SM_CHP	
Antimony and compounds	7440-36-0	Yes	0.98	1.4E-05	0.47	6.7E-06	0.12	1.8E-06	0.47	6.8E-06	--	--	0.47	6.7E-06	0.94	1.4E-05	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	6.05	8.7E-05	2.60	3.7E-05	0.34	4.8E-06	2.62	3.8E-05	--	--	2.60	3.7E-05	5.22	7.5E-05	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	2,678	0.039	310	4.5E-03	190	2.7E-03	312	4.5E-03	--	--	310	4.5E-03	622	9.0E-03	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	0.091	1.3E-06	0.016	2.3E-07	5.3E-03	7.6E-08	0.016	2.3E-07	--	--	0.016	2.3E-07	0.032	4.7E-07	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	1.04	1.5E-05	0.75	1.1E-05	0.20	2.8E-06	0.75	1.1E-05	--	--	0.75	1.1E-05	1.51	2.2E-05	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	0.87	1.3E-05	0.055	7.9E-07	0.27	3.9E-06	0.055	8.0E-07	--	--	0.055	7.9E-07	0.11	1.6E-06	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	Yes	6.37	9.2E-05	1.52	2.2E-05	0.066	9.4E-07	1.53	2.2E-05	--	--	1.52	2.2E-05	3.06	4.4E-05	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	12.1	1.7E-04	4.27	6.1E-05	3.24	4.7E-05	4.29	6.2E-05	--	--	4.27	6.1E-05	8.56	1.2E-04	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	16.7	2.4E-04	7.04	1.0E-04	1.22	1.8E-05	7.07	1.0E-04	--	--	7.04	1.0E-04	14.1	2.0E-04	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	504	No	397	5.7E-03	24.2	3.5E-04	214	3.1E-03	24.4	3.5E-04	--	--	24.2	3.5E-04	48.6	7.0E-04	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	307	4.4E-03	58.6	8.4E-04	72.7	1.0E-03	59.0	8.5E-04	--	--	58.6	8.4E-04	118	1.7E-03	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	2.95	4.2E-05	0.28	4.0E-06	0.070	1.0E-06	0.28	4.1E-06	--	--	0.28	4.0E-06	0.56	8.1E-06	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	39.8	5.7E-04	2.43	3.5E-05	0.12	1.8E-06	2.44	3.5E-05	--	--	2.43	3.5E-05	4.87	7.0E-05	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	8.97	1.3E-04	1.72	2.5E-05	0.52	7.5E-06	1.73	2.5E-05	--	--	1.72	2.5E-05	3.45	5.0E-05	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	5.19	7.5E-05	0.40	5.8E-06	0.028	4.1E-07	0.40	5.8E-06	--	--	0.40	5.8E-06	0.80	1.2E-05	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	12.6	1.8E-04	0.77	1.1E-05	36.8	5.3E-04	0.77	1.1E-05	--	--	0.77	1.1E-05	1.54	2.2E-05	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	23.7	3.4E-04	1.45	2.1E-05	0.073	1.0E-06	1.45	2.1E-05	--	--	1.45	2.1E-05	2.90	4.2E-05	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	1.90	2.7E-05	0.14	2.0E-06	0.039	5.5E-07	0.14	2.0E-06	--	--	0.14	2.0E-06	0.28	4.0E-06	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	738	0.011	182	2.6E-03	22.4	3.2E-04	183	2.6E-03	--	--	182	2.6E-03	365	5.3E-03	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	363	5.2E-03	22.1	3.2E-04	11.1	1.6E-04	22.2	3.2E-04	73.7	1.1E-03	95.8	1.4E-03	118	1.7E-03	15,411	0.22	350	5.0E-03	934	0.013	--	--	--	--
Acetone	67-64-1	Yes	678	9.8E-03	41.4	5.9E-04	20.8	3.0E-04	41.6	6.0E-04	400	5.8E-03	441	6.3E-03	483	6.9E-03	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	No	2.36	3.4E-05	0.14	2.1E-06	0.072	1.0E-06	0.14	2.1E-06	0.36	5.2E-06	0.50	7.3E-06	0.65	9.3E-06	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	333	4.8E-03	20.3	2.9E-04	10.2	1.5E-04	20.4	2.9E-04	125	1.8E-03	145	2.1E-03	166	2.4E-03	277	4.0E-03	6.29	9.0E-05	16.8	2.4E-04	--	--	--	--
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	1,256	0.018	76.6	1.1E-03	38.5	5.5E-04	77.0	1.1E-03	31.1	4.5E-04	108	1.5E-03	185	2.7E-03	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	12.6	1.8E-04	0.77	1.1E-05	0.39	5.6E-06	0.78	1.1E-05	--	--	0.77	1.1E-05	1.55	2.2E-05	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	1,012	0.015	61.8	8.9E-04	31.1	4.5E-04	62.1	8.9E-04	--	--	61.8	8.9E-04	124	1.8E-03	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	34.3	4.9E-04	2.10	3.0E-05	1.05	1.5E-05	2.11	3.0E-05	--	--	2.10	3.0E-05	4.20	6.0E-05	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dipropylene glycol monomethyl ether	34590-94-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	0.33	4.8E-06	0.33	4.8E-06	0.33	4.8E-06	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Yes	21.3	3.1E-04	1.30	1.9E-05	0.65	9.4E-06	1.30	1.9E-05	--	--	1.30	1.9E-05	2.60	3.7E-05	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	25.8	3.7E-04	1.57	2.3E-05	0.79	1.1E-05	1.58	2.3E-05	--	--	1.57	2.3E-05	3.15	4.5E-05	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	57.4	8.3E-04	3.50	5.0E-05	1.76	2.5E-05	3.52	5.1E-05	43.4	6.2E-04	46.9	6.7E-04	50.4	7.2E-04	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	42.7	6.1E-04	2.60	3.7E-05	1.31	1.9E-05	2.62	3.8E-05	--	--	2.60	3.7E-05	5.22	7.5E-05	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	21.5	3.1E-04	1.31	1.9E-05	0.66	9.5E-06	1.32	1.9E-05	--	--	1.31	1.9E-05	2.63	3.8E-05	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	55.9	8.0E-04	3.41	4.9E-05	1.71	2.5E-05	3.43	4.9E-05	--	--	3.41	4.9E-05	6.84	9.8E-05	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	15.6	2.2E-04	0.95	1.4E-05	0.48	6.9E-06	0.96	1.4E-05	--	--	0.95	1.4E-05	1.91	2.8E-05	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	1,346	0.019	82.1	1.2E-03	41.3	5.9E-04	82.5	1.2E-03	38.7	5.6E-04	121	1.7E-03	203	2.9E-03	705	0.010	16.0	2.3E-04	42.7	6.1E-04	--	--	--	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	570	8.2E-03	34.8	5.0E-04	17.5	2.5E-04	35.0	5.0E-04	31.4	4.5E-04	66.2	9.5E-04	101	1.5E-03	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene (Cumene)	98-82-8	Yes	22.7	3.3E-04	1.38	2.0E-05	0.70	1.0E-05	1.39	2.0E-05	0.43	6.2E-06	1.82	2.6E-05	3.21	4.6E-05	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Yes	369	5.3E-03	22.5	3.2E-04	11.3	1.6E-04	22.6	3.3E-04	--	--	22.5	3.2E-04	45.2	6.5E-04	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	5,792	0.083	353	5.1E-03	178	2.6E-03	355	5.1E-03	--	--	353	5.1E-03	709	0.010	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	938	0.013	57.2	8.2E-04	28.8	4.1E-04	57.5	8.3E-04	11.8	1.7E-04	69.0	9.9E-04	127	1.8E-03	23,551	0.34	535	7.7E-03	1,427	0.021	99.1	1.4E-03	39.0	5.6E-04
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	14.5	2.1E-04	0.88	1.3E-05	0.44	6.4E-06	0.89	1.3E-05	0.53	7.6E-06	1.41	2.0E-05	2.30	3.3E-05	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	55.7	8.0E-04	3.40	4.9E-05	1.71	2.5E-05	3.42	4.9E-05	2.18	3.1E-05	5.58	8.0E-05	9.00	1.3E-04	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	74.1	1.1E-03	4.52	6.5E-05	2.27	3.3E-05	4.54	6.5E-05	--	--	4.52	6.5E-05	9.06	1.3E-04	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	0.77	1.1E-05	0.77	1.1E-05	0.77	1.1E-05	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	510	7.3E-03	31.1	4.5E-04	15.6	2.3E-04	31.3	4.5E-04	10.1	1.4E-04	41.2	5.9E-04	72.5	1.0E-03	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	8.93	1.3E-04	0.54	7.8E-06	0.27	3.9E-06	0.55	7.9E-06	24.5	3.5E-04	25.1	3.6E-04	25.6	3.7E-04	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	205	2.9E-03	12.5	1.8E-04	6.29	9.0E-05	12.6	1.8E-04	230	3.3E-03	242	3.5E-03	255	3.7E-03	--	--	--	--	--	--	--	--	--	--
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	Yes	399	5.7E-03	24.3	3.5E-04	12.2	1.8E-04	24.4	3.5E-04	41.0	5.9E-04	65.4	9.4E-04	89.8	1.3E-03	268	3.9E-03	6.09	8.8E-05	16.2	2.3E-04	--	--	--	--
Styrene	100-42-5	Yes	601	8.6E-03	36.7	5.3E-04	18.4	2.7E-04	36.9	5.3E-04	1.38	2.0E-05	38.0	5.5E-04	74.9	1.1E-03	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Yes	14.6	2.1E-04	0.89	1.3E-05	0.45	6.4E-06	0.90	1.3E-05	51.0	7.3E-04	51.9	7.5E-04	52.8	7.6E-04	--	--	--	--	--	--	--	--	--	--
Xylene (mixture)	1330-20-7	Yes	6.69	9.6E-05	0.41	5.9E-06	0.21	3.0E-06	0.41	5.9E-06	--	--	0.41	5.9E-06	0.82	1.2E-05	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	23.6	3.4E-04	1.44	2.1E-05	0.72	1.0E-05	1.45	2.1E-05	--	--	1.44	2.1E-05	2.88	4.1E-05	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	25.5	3.7E-04	1.56	2.2E-05	0.78	1.1E-05	1.56	2.3E-05	--	--	1.56	2.2E-05	3.12	4.5E-05	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	15.4	2.2E-04	15.4	2.2E-04	15.4	2.2E-04	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	15.4	2.2E-04	15.4	2.2E-04	15.4	2.2E-04	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	--	--	--	--	--	--	--	--	0.27	3.9E-06	0.27	3.9E-06	0.27	3.9E-06	--	--	--	--	--	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	116	1.7E-03	1.99	2.9E-05	3.56	5.1E-05	2.00	2.9E-05	--	--	1.99	2.9E-05	3.98	5.7E-05	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	99.4	1.4E-03	9.23	1.3E-04	171	2.5E-03	9.28	1.3E-04	--	--	9.23	1.3E-04	18.5	2.7E-04	--	--	--	--	--	--	--	--	--	--
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	10.9	1.6E-04	0.67	9.6E-06	0.034	4.8E-07	0.67	9.6E-06	--	--	0.67	9.6E-06	1.34	1.9E-05	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	60.1	8.6E-04	3.67	5.3E-05	0.18	2.7E-06	3.69	5.3E-05	--	--	3.67	5.3E-05	7.35	1.1E-04	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	34.3	4.9E-04	2.10	3.0E-05	0.11	1.5E-06	2.11	3.0E-05	--	--	2.10	3.0E-05	4.20	6.0E-05	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	Yes	1.04	1.5E-05	0.064	9.1E-07	3.2E-03	4.6E-08	0.064	9.2E-07	--	--	0.064	9.1E-07	0.13	1.8E-06	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	7.11	1.0E-04	0.52	7.5E-06	0.087	1.3E-06	0.52	7.5E-06	--	--	0.52	7.5E-06	1.04	1.5E-05	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	Yes	1.82	2.6E-05	0.11	1.6E-06	5.6E-03	8.0E-08	0.11	1.6E-06	--	--	0.11	1.6E-06	0.22	3.2E-06	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	2.70	3.9E-05	0.16	2.4E-06	8.3E-03	1.2E-07	0.17	2.4E-06	--	--	0.16	2.4E-06	0.33	4.8E-06	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	1.93	2.8E-05	0.12	1.7E-06	5.9E-03	8.5E-08	0.12	1.7E-06	--	--	0.12	1.7E-06	0.24	3.4E-06	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	Yes	2.00	2.9E-05	0.12	1.8E-06	6.1E-03	8.8E-08	0.12	1.8E-06	--	--	0.12	1.8E-06	0.24	3.5E-06	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	Yes	0.66	9.5E-06	0.040	5.8E-07	2.0E-03	2.9E-08	0.041	5.9E-07	--	--	0.040	5.8E-07	0.081	1.2E-06	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	Yes	1.01	1.5E-05	0.062	8.9E-07	3.1E-03	4.5E-08	0.062	8.9E-07	--	--	0.062	8.9E-07	0.12	1.8E-06	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	Yes	21.4	3.1E-04	1.31	1.9E-05	0.066	9.4E-07	1.31	1.9E-05	--	--	1.31	1.9E-05	2.62	3.8E-05	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	38.6	5.5E-04	2.35	3.4E-05	0.12	1.7E-06	2.37	3.4E-05	--	--	2.35	3.4E-05	4.72	6.8E-05	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	1.31	1.9E-05	0.080	1.1E-06	4.0E-03	5.8E-08	0.080	1.2E-06	--	--	0.080	1.1E-06	0.16	2.3E-06	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	17.9	2.6E-04	1.09	1.6E-05	0.055	7.9E-07	1.10	1.6E-05	--	--	1.09	1.6E-05	2.20	3.2E-05	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	319	4.6E-03	23.4	3.4E-04	3.91	5.6E-05	23.5	3.4E-04	44.7	6.4E-04	68.0	9.8E-04	91.5	1.3E-03	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	0.41	5.9E-06	0.025	3.6E-07	1.3E-03	1.8E-08	0.025	3.6E-07	--	--	0.025	3.6E-07	0.050	7.2E-07	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	82.8	1.2E-03	5.05	7.3E-05	0.25	3.7E-06	5.08	7.3E-05	--	--	5.05	7.3E-05	10.1	1.5E-04	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	45.4	6.5E-04	2.77	4.0E-05	0.14	2.0E-06	2.78	4.0E-05	--	--	2.77	4.0E-05	5.55	8.0E-05	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	1.2E-06	1.8E-11	7.5E-08	1.1E-12	3.7E-08	5.4E-13	7.5E-08	1.1E-12	--	--	7.5E-08	1.1E-12	1.5E-07	2.1E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	1.7E-06	2.5E-11	1.0E-07	1.5E-12	5.2E-08	7.5E-13	1.0E-07	1.5E-12	--	--	1.0E-07	1.5E-12	2.1E-07	3.0E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	1.1E-06	1.6E-11	6.8E-08	9.8E-13	3.4E-08	4.9E-13	6.8E-08	9.8E-13	--	--	6.8E-08	9.8E-13	1.4E-07	2.0E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	2.7E-06	3.9E-11	1.6E-07	2.4E-12	8.2E-08	1.2E-12	1.6E-07	2.4E-12	--	--	1.6E-07	2.4E-12	3.3E-07	4.7E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	2.8E-06	4.1E-11	1.7E-07	2.5E-12	8.7E-08	1.2E-12	1.7E-07	2.5E-12	--	--	1.7E-07	2.5E-12	3.5E-07	5.0E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	1.3E-05	1.8E-10	7.6E-07	1.1E-11	3.8E-07	5.5E-12	7.7E-07	1.1E-11	--	--	7.6E-07	1.1E-11	1.5E-06	2.2E-11	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	3.2E-05	4.5E-10	1.9E-06	2.8E-11	9.7E-07	1.4E-11	1.9E-06	2.8E-11	--	--	1.9E-06	2.8E-11	3.9E-06	5.5E-11	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	1.0E-05	1.5E-10	6.3E-07	9.0E-12	3.2E-07	4.5E-12	6.3E-07	9.1E-12	--	--	6.3E-07	9.0E-12	1.3E-06	1.8E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	5.1E-06	7.4E-11	3.1E-07	4.5E-12	1.6E-07	2.3E-12	3.1E-07	4.5E-12	--	--	3.1E-07	4.5E-12	6.3E-07	9.0E-12	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	7.8E-06	1.1E-10	4.8E-07	6.8E-12	2.4E-07	3.4E-12	4.8E-07	6.9E-12	--	--	4.8E-07	6.8E-12	9.5E-07	1.4E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	4.6E-06	6.6E-11	2.8E-07	4.0E-12	1.4E-07	2.0E-12	2.8E-07	4.0E-12	--	--	2.8E-07	4.0E-12	5.6E-07	8.0E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	4.0E-06	5.8E-11	2.5E-07	3.6E-12	1.2E-07	1.8E-12	2.5E-07	3.6E-12	--	--	2.5E-07	3.6E-12	5.0E-07	7.1E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	8.5E-07	1.2E-11	5.2E-08	7.5E-13	2.6E-08	3.8E-13	5.2E-08	7.5E-13	--	--	5.2E-08	7.5E-13	1.0E-07	1.5E-12	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	3.4E-06	4.9E-11	2.1E-07	3.0E-12	1.0E-07	1.5E-12	2.1E-07	3.0E-12	--	--	2.1E-07	3.0E-12	4.2E-07	6.0E-12	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	7.3E-06	1.1E-10	4.5E-07	6.4E-12	2.2E-07	3.2E-12	4.5E-07	6.5E-12	--	--	4.5E-07	6.4E-12	9.0E-07	1.3E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	1.0E-06	1.5E-11	6.2E-08	9.0E-13	3.1E-08	4.5E-13	6.3E-08	9.0E-13	--	--	6.2E-08	9.0E-13	1.3E-07	1.8E-12	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	6.4E-06	9.2E-11	3.9E-07	5.6E-12	2.0E-07	2.8E-12	3.9E-07	5.7E-12	--	--	3.9E-07	5.6E-12	7.8E-07	1.1E-11	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	Yes	0.010	1.4E-07	6.1E-04	8.8E-09	3.1E-04	4.4E-09	6.2E-04	8.9E-09	--	--	6.1E-04	8.8E-09	1.2E-03	1.8E-08	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	Yes	0.011	1.6E-07	6.8E-04	9.8E-09	3.4E-04	4.9E-09	6.8E-04	9.8E-09	--	--	6.8E-04	9.8E-09	1.4E-03	2.0E-08	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	5.9E-03	8.4E-08	3.6E-04	5.1E-09	1.8E-04	2.6E-09	3.6E-04	5.2E-09	--	--	3.6E-04	5.1E-09	7.2E-04	1.0E-08	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	0.33	4.8E-06	0.020	2.9E-07	0.010	1.5E-07	0.020	2.9E-07	--	--	0.020	2.9E-07	0.041	5.8E-07	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Yes	1.21	1.7E-05	0.074	1.1E-06	0.037	5.3E-07	0.074	1.1E-06	--	--	0.074	1.1E-06	0.15	2.1E-06	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	2.69	3.9E-05	0.16	2.4E-06	0.083	1.2E-06	0.17	2.4E-06	--	--	0.16	2.4E-06	0.33	4.7E-06	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	0.060	8.6E-07	3.6E-03	5.2E-08	1.8E-03	2.6E-08	3.7E-03	5.3E-08	--	--	3.6E-03	5.2E-08	7.3E-03	1.0E-07	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	26.3	3.8E-04	1.60	2.3E-05	0.81	1.2E-05	1.61	2.3E-05	--	--	1.60	2.3E-05	3.21	4.6E-05	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	0.14	2.0E-06	8.6E-03	1.2E-07	4.3E-03	6.2E-08	8.6E-03	1.2E-07	--	--	8.6E-03	1.2E-07	0.017	2.5E-07	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	37.4	5.4E-04	2.28	3.3E-05	1.15	1.7E-05	2.30	3.3E-05	--	--	2.28	3.3E-05	4.58	6.6E-05	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	358	5.1E-03	21.8	3.1E-04	11.0	1.6E-04	21.9	3.2E-04	--	--	21.8	3.1E-04	43.7	6.3E-04	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	0.15	2.1E-06	8.9E-03	1.3E-07	4.5E-03	6.4E-08	9.0E-03	1.3E-07	--	--	8.9E-03	1.3E-07	0.018	2.6E-07	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	0.030	4.3E-07	1.8E-03	2.6E-08	9.2E-04	1.3E-08	1.8E-03	2.7E-08	--	--	1.8E-03	2.6E-08	3.7E-03	5.3E-08	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	0.23	3.3E-06	0.014	2.0E-07	7.1E-03	1.0E-07	0.014	2.0E-07	--	--	0.014	2.0E-07	0.028	4.1E-07	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	17.8	2.6E-04	1.09	1.6E-05	0.55	7.9E-06	1.09	1.6E-05	--	--	1.09	1.6E-05	2.18	3.1E-05	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Yes	0.26	3.7E-06	0.016	2.2E-07	7.9E-03	1.1E-07	0.016	2.3E-07	--	--	0.016	2.2E-07	0.031	4.5E-07	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	Yes	0.27	3.9E-06	0.017	2.4E-07	8.4E-03	1.2E-07	0.017	2.4E-07	--	--	0.017	2.4E-07	0.034	4.8E-07	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	31.5	4.5E-04	1.92	2.8E-05	0.97	1.4E-05	1.93	2.8E-05	--	--	1.92	2.8E-05	3.86	5.5E-05	--	--	--	--	--	--	--	--	--	--
Total TAC Emissions Estimate			**20,508**	**0.29**	**1,593**	**0.023**	**1,194**	**0.017**	**1,601**	**0.023**	**1,193**	**0.017**	**2,786**	**0.040**	**4,387**	**0.063**	**40,211**	**0.58**	**914** [8]	**0.013**	**2,437** [8]	**0.035**	**99.1**	**1.4E-03**	**39.0**	**5.6E-04**

Notes

g/s = grams per second; lb/yr = pounds per year; RBC = risk-based concentration.

[a] Emission rate (g/s) = (annual emissions estimate [lb/yr]) x (453.592 g/lb)
/ (8,760 hrs/yr) / (3,600 s/hr)

[b] Total scrubber emissions (normal operations) (lb/yr) =
(hogged fuel boiler scrubber normal emissions [lb/yr]) +
(fuel dryer emissions [lb/yr])

[c] Total scrubber emissions (SU operations) (lb/yr) =
(hogged fuel boiler scrubber normal emissions [lb/yr]) +
(hogged fuel boiler scrubber SU emissions [lb/yr]) +
(fuel dryer emissions [lb/yr])

[d] Model emission rate (kiln 1) (lb/yr) = (total kiln emission rate [lb/yr])
x (model rate distribution for kiln 1 volume sources)
Model rate distribution for kiln 1 volume sources = 0.023 (6)

[e] Model emission rate (kiln 2-6) (lb/yr) = (total kiln emission rate [lb/yr])
x (model rate distribution for kilns 2-6 volume sources)
Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

[f] Bay door emissions (lb/yr) = (resin tank 4 [lb/yr]
+ (whitewater chest [lb/yr])

[g] Total paintline emissions (lb/yr) = (basecoat emissions [lb/yr])
+ (topcoat emissions [lb/yr])

References

[1] Total scrubber (normal operation) scenario includes emission estimates from the scrubber (normal operations) and fuel dryer.
[2] Total scrubber (SU operation) scenario includes emission estimates from the scrubber (normal operations), scrubber (SU operations), and fuel dryer.
[3] SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility-wide emissions assuming normal operations.
[4] SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-wide emissions assuming normal operations.
[5] See Attachment A of the Construction ACDP application.
[6] See Table 4-6, Kiln Emissions Allocation.
[7] Stimson Lumber Company is not proposing a change in emissions for this TEU.
[8] Emission rates representative of individual model volume sources and not entire kiln.

Table 4-2
Annual TAC Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Annual Emission Estimates — Existing TEUs with Proposed Changes Not Associated with the Proposed Project																					
			Lumber Surface Protection		Press				Refiner				Resin Storage Tanks								HBWW - Whitewater Chest		Bay Door	
					Stack		Fugitives		Rotary Valve		Scrubber 5		Tank 1		Tank 2		Tank 3		Tank 4					
			(lb/yr) [7]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [5]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [f]	(g/s) [a]
Model ID	--	--	LSP		PVUV_STK		HPVUV_FUG		RF12_RV		RF12_STK		RESIN1		RESIN2		RESIN3		RESIN4		--		WHITE	
Antimony and compounds	7440-36-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	504	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	--	--	342	4.9E-03	20.2	2.9E-04	46.3	6.7E-04	992	0.014	--	--	--	--	--	--	--	--	16.1	2.3E-04	16.1	2.3E-04
Acetone	67-64-1	Yes	--	--	405	5.8E-03	6.93	1.0E-04	151	2.2E-03	119	1.7E-03	--	--	--	--	--	--	--	--	6.12	8.8E-05	6.12	8.8E-05
Acetophenone	98-86-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	--	--	--	--	--	--	--	--	109	1.6E-03	--	--	--	--	--	--	--	--	1.2E-19	1.7E-24	1.2E-19	1.7E-24
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.6E-03	1.1E-07	--	--	7.6E-03	1.1E-07
Dipropylene glycol monomethyl ether	34590-94-8	No	2,472	0.036	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	--	--	4,731	0.068	17.6	2.5E-04	12.8	1.8E-04	125	1.8E-03	35.2	5.1E-04	37.7	5.4E-04	37.8	5.4E-04	--	--	16.1	2.3E-04	16.1	2.3E-04
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	--	--	--	--	--	--	9.28	1.3E-04	8.91	1.3E-04	--	--	--	--	--	--	--	--	1.59	2.3E-05	1.59	2.3E-05
Isopropylbenzene (Cumene)	98-82-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	--	--	3,807	0.055	302	4.3E-03	45.3	6.5E-04	72.2	1.0E-03	3.50	5.0E-05	3.75	5.4E-05	3.76	5.4E-05	--	--	--	--	--	--
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	--	--	--	--	--	--	8.99	1.3E-04	5.03	7.2E-05	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	--	--	--	--	12.6	1.8E-04	--	--	--	--	2.4E-03	3.5E-08	2.6E-03	3.7E-08	2.6E-03	3.7E-08	--	--	0.25	3.6E-06	0.25	3.6E-06
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	Yes	--	--	--	--	--	--	--	--	13.6	2.0E-04	--	--	--	--	--	--	--	--	0.67	9.7E-06	0.67	9.7E-06
Styrene	100-42-5	Yes	--	--	--	--	--	--	6.55	9.4E-05	6.55	9.4E-05	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Yes	--	--	--	--	1.39	2.0E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene (mixture)	1330-20-7	Yes	--	--	--	--	6.68	9.6E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	--	--	--	--	4.54	6.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TAC Emissions Estimate			**2,472**	**0.036**	**9,285**	**0.13**	**372**	**5.4E-03**	**280**	**4.0E-03**	**1,452**	**0.021**	**38.7**	**5.6E-04**	**41.5**	**6.0E-04**	**41.6**	**6.0E-04**	**7.6E-03**	**1.1E-07**	**40.7**	**5.9E-04**	**40.8**	**5.9E-04**

Notes

g/s = grams per second; lb/yr = pounds per year; RBC = risk-based concentration.

(a) Emission rate (g/s) = (annual emissions estimate [lb/yr]) x (453.592 g/lb) / (8,760 hrs/yr) / (3,600 s/hr)

(b) Total scrubber emissions (normal operations) (lb/yr) = (hogged fuel boiler scrubber normal emissions [lb/yr]) + (fuel dryer emissions [lb/yr])

(c) Total scrubber emissions (SU operations) (lb/yr) = (hogged fuel boiler scrubber normal emissions [lb/yr]) + (hogged fuel boiler scrubber SU emissions [lb/yr]) + (fuel dryer emissions [lb/yr])

(d) Model emission rate (kiln 1) (lb/yr) = (total kiln emission rate [lb/yr]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

(e) Model emission rate (kiln 2-6) (lb/yr) = (total kiln emission rate [lb/yr]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

(f) Bay door emissions (lb/yr) = (resin tank 4 [lb/yr] + (whitewater chest [lb/yr])

(g) Total paintline emissions (lb/yr) = (basecoat emissions [lb/yr]) + (topcoat emissions [lb/yr])

References

(1) Total scrubber (normal operation) scenario includes emission estimates from the scrub

(2) Total scrubber (SU operation) scenario includes emission estimates from the scrubber

(3) SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility

(4) SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-w

(5) See Attachment A of the Construction ACDP application.

(6) See Table 4-6, Kiln Emissions Allocation.

(7) Stimson Lumber Company is not proposing a change in emissions for this TEU.

(8) Emission rates representative of individual model volume sources and not entire kiln.

Table 4-2
Annual TAC Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Annual Emission Estimates – Existing TEU's with No Change																									
			Forming Line				Hardboard Waste Water				WW - Hydrosieves		BLR-SCR - Hydrosieves		Wastewater Treatment System													
			Stack		Fugitives		Machine Chest		Head Box						Surge Pond		Aeration Basin		Secondary Clarifier		Sludge Pit Conveyor		Sludge Pond		Resue Pond		East Pond	
			(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)	(lb/yr) (7)	(g/s) (a)
Model ID	--	--	FORM_STK		FORM_FUG		MACH		HEADBOX		HYDRO		SCR_HYDRO		SURGE		ABASE		CLAR		PIT		S_POND		R_POND		E_POND	
Antimony and compounds	7440-36-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	504	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	261	3.8E-03	26.1	3.8E-04	248	3.6E-03	70.9	1.0E-03	112	1.6E-03	1.06	1.5E-05	202	2.9E-03	8.41	1.2E-04	0.13	1.9E-06	3.3E-04	4.8E-09	0.024	3.4E-07	0.012	1.8E-07	0.017	2.4E-07
Acetone	67-64-1	Yes	115	1.7E-03	11.5	1.7E-04	84.1	1.2E-03	18.7	2.7E-04	13.3	1.9E-04	2.73	3.9E-05	7.76	1.1E-04	0.039	5.6E-07	7.5E-04	1.1E-08	2.3E-19	3.4E-24	3.0E-05	4.3E-10	5.6E-06	8.1E-11	6.3E-06	9.1E-11
Acetophenone	98-86-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	22.2	3.2E-04	2.22	3.2E-05	29.6	4.3E-04	7.0E-19	1.0E-23	1.1E-18	1.6E-23	7.16	1.0E-04	9.0E-19	1.3E-23	2.6E-20	3.7E-25	3.6E-22	5.2E-27	6.0E-20	8.6E-25	2.0E-18	2.8E-23	7.6E-19	1.1E-23	9.7E-19	1.4E-23
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dipropylene glycol monomethyl ether	34590-94-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	103	1.5E-03	10.3	1.5E-04	56.5	8.1E-04	13.2	1.9E-04	6.08	8.8E-05	0.054	7.7E-07	77.2	1.1E-03	1.08	1.6E-05	0.018	2.5E-07	2.1E-05	3.1E-10	5.7E-03	8.1E-08	4.6E-03	6.7E-08	6.0E-03	8.6E-08
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	8.24	1.2E-04	0.82	1.2E-05	67.8	9.8E-04	24.3	3.5E-04	50.7	7.3E-04	0.24	3.5E-06	7.79	1.1E-04	0.45	6.4E-06	3.0E-03	4.3E-08	1.8E-05	2.6E-10	2.1E-04	3.0E-09	6.3E-05	9.1E-10	8.1E-05	1.2E-09
Isopropylbenzene (Cumene)	98-82-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	591	8.5E-03	59.1	8.5E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	16.2	2.3E-04	1.62	2.3E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	--	--	--	--	0.32	4.6E-06	0.15	2.1E-06	0.16	2.3E-06	0.016	2.2E-07	6.1E-03	8.8E-08	1.4E-06	2.0E-11	2.8E-08	4.0E-13	1.9E-11	2.8E-16	1.3E-10	1.8E-15	3.2E-12	4.6E-17	3.7E-12	5.4E-17
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	Yes	--	--	--	--	8.90	1.3E-04	2.61	3.8E-05	4.12	5.9E-05	3.15	4.5E-05	6.74	9.7E-05	0.20	2.9E-06	3.4E-03	4.9E-08	7.2E-06	1.0E-10	5.4E-04	7.7E-09	2.6E-04	3.8E-09	3.5E-04	5.1E-09
Styrene	100-42-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Yes	16.3	2.3E-04	1.63	2.3E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene (mixture)	1330-20-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TAC Emissions Estimate			**1,134**	**0.016**	**113**	**1.6E-03**	**495**	**7.1E-03**	**130**	**1.9E-03**	**186**	**2.7E-03**	**14.4**	**2.1E-04**	**301**	**4.3E-03**	**10.2**	**1.5E-04**	**0.16**	**2.3E-06**	**3.8E-04**	**5.5E-09**	**0.030**	**4.3E-07**	**0.017**	**2.5E-07**	**0.023**	**3.4E-07**

Notes

g/s = grams per second; lb/yr = pounds per year; RBC = risk-based concentration.

(a) Emission rate (g/s) = (annual emissions estimate [lb/yr]) x (453.592 g/lb) / (8,760 hrs/yr) / (3,600 s/hr)

(b) Total scrubber emissions (normal operations) (lb/yr) = (hogged fuel boiler scrubber normal emissions [lb/yr]) + (fuel dryer emissions [lb/yr])

(c) Total scrubber emissions (SU operations) (lb/yr) = (hogged fuel boiler scrubber normal emissions [lb/yr]) + (hogged fuel boiler scrubber SU emissions [lb/yr]) + (fuel dryer emissions [lb/yr])

(d) Model emission rate (kiln 1) (lb/yr) = (total kiln emission rate [lb/yr]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

(e) Model emission rate (kiln 2-6) (lb/yr) = (total kiln emission rate [lb/yr]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

(f) Bay door emissions (lb/yr) = (resin tank 4 [lb/yr] + (whitewater chest [lb/yr])

(g) Total paintline emissions (lb/yr) = (basecoat emissions [lb/yr]) + (topcoat emissions [lb/yr])

References

(1) Total scrubber (normal operation) scenario includes emission estimates from the scrub

(2) Total scrubber (SU operation) scenario includes emission estimates from the scrubber

(3) SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility

(4) SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-w

(5) See Attachment A of the Construction ACDP application.

(6) See Table 4-6, Kiln Emissions Allocation.

(7) Stimson Lumber Company is not proposing a change in emissions for this TEU.

(8) Emission rates representative of individual model volume sources and not entire kiln.

Table 4-2
Annual TAC Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Annual Emission Estimates																					
			Existing TEU's with No Change																					
			Basecoat		Topcoat		Paintline Total		Welding		Babbitt Pot		Fire Pump		Backup Generator		Proposed Emergency Generator		Gas Storage Tank		Facility Total			
																					Multi-Clone SU Scenario [3]		Scrubber SU Scenario [4]	
			(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr) [7]	(g/s) [a]	(lb/yr)	(g/s)	(lb/yr)	(g/s)
Model ID	--	--	--		--		PAINT		WELD		BPOT		FIRE		BGEN		EGEN01		GAS		--	--	--	--
Antimony and compounds	7440-36-0	Yes	--	--	--	--	--	--	--	--	0.023	3.2E-07	2.3E-04	3.3E-09	1.3E-03	1.9E-08	4.7E-04	6.8E-09	--	--	1.60	2.3E-05	1.95	2.8E-05
Arsenic and compounds	7440-38-2	Yes	--	--	--	--	--	--	--	--	--	--	1.2E-03	1.7E-08	6.5E-03	9.4E-08	2.4E-03	3.4E-08	--	--	9.00	1.3E-04	11.3	1.6E-04
Barium and compounds	7440-39-3	No	--	--	--	--	--	--	--	--	--	--	2.7E-04	3.9E-09	1.5E-03	2.2E-08	5.6E-04	8.0E-09	--	--	3,178	0.046	3,301	0.047
Beryllium and compounds	7440-41-7	Yes	--	--	--	--	--	--	--	--	--	--	3.4E-06	4.9E-11	1.9E-05	2.8E-10	7.1E-06	1.0E-10	--	--	0.11	1.6E-06	0.12	1.8E-06
Cadmium and compounds	7440-43-9	Yes	--	--	--	--	--	--	--	--	--	--	1.1E-03	1.6E-08	6.1E-03	8.8E-08	2.2E-03	3.2E-08	--	--	1.99	2.9E-05	2.55	3.7E-05
Chromium VI	18540-29-9	Yes	--	--	--	--	--	--	2.1E-03	3.1E-08	--	--	7.2E-05	1.0E-09	4.1E-04	5.9E-09	1.5E-04	2.1E-09	--	--	1.20	1.7E-05	0.98	1.4E-05
Cobalt and compounds	7440-48-4	Yes	--	--	--	--	--	--	2.6E-04	3.7E-09	--	--	1.1E-05	1.6E-10	6.4E-05	9.3E-10	2.3E-05	3.4E-10	--	--	7.96	1.1E-04	9.43	1.4E-04
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	1.52	2.2E-05	--	--	--	--	--	--	--	--	--	--	1.52	2.2E-05	1.52	2.2E-05
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	7.1E-03	1.0E-07	--	--	--	--	--	--	--	--	--	--	7.1E-03	1.0E-07	7.1E-03	1.0E-07
Copper and compounds	7440-50-8	Yes	--	--	--	--	--	--	1.6E-03	2.2E-08	0.023	3.2E-07	3.0E-03	4.2E-08	0.017	2.4E-07	6.1E-03	8.8E-08	--	--	19.7	2.8E-04	20.8	3.0E-04
Lead and compounds	7439-92-1	Yes	--	--	--	--	--	--	--	--	--	--	6.0E-03	8.6E-08	0.034	4.9E-07	0.012	1.8E-07	--	--	25.0	3.6E-04	30.9	4.4E-04
Phosphorus and compounds	504	No	--	--	--	--	--	--	--	--	--	--	6.1E-03	8.7E-08	0.034	4.9E-07	0.013	1.8E-07	--	--	636	9.1E-03	446	6.4E-03
Manganese and compounds	7439-96-5	Yes	--	--	--	--	--	--	0.29	4.1E-06	--	--	2.2E-03	3.2E-08	0.013	1.8E-07	4.6E-03	6.6E-08	--	--	438	6.3E-03	424	6.1E-03
Mercury and compounds	7439-97-6	Yes	--	--	--	--	--	--	--	--	--	--	1.4E-03	2.1E-08	8.2E-03	1.2E-07	3.0E-03	4.3E-08	--	--	3.31	4.8E-05	3.52	5.1E-05
Molybdenum trioxide	1313-27-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	42.3	6.1E-04	44.7	6.4E-04
Nickel and compounds	365	Yes	--	--	--	--	--	--	0.013	1.9E-07	2.3E-03	3.2E-08	2.8E-03	4.0E-08	0.016	2.3E-07	5.8E-03	8.4E-08	--	--	11.3	1.6E-04	12.5	1.8E-04
Selenium and compounds	7782-49-2	Yes	--	--	--	--	--	--	--	--	--	--	1.6E-03	2.3E-08	9.0E-03	1.3E-07	3.3E-03	4.7E-08	--	--	5.63	8.1E-05	6.01	8.6E-05
Silver and compounds	7440-22-4	No	--	--	--	--	--	--	--	--	--	--	3.5E-05	5.0E-10	2.0E-04	2.8E-09	7.2E-05	1.0E-09	--	--	50.2	7.2E-04	14.2	2.0E-04
Thallium and compounds	7440-28-0	No	--	--	--	--	--	--	--	--	--	--	1.7E-04	2.5E-09	9.8E-04	1.4E-08	3.6E-04	5.1E-09	--	--	25.2	3.6E-04	26.6	3.8E-04
Vanadium (fume or dust)	7440-62-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.08	3.0E-05	2.18	3.1E-05
Zinc and compounds	7440-66-6	No	--	--	--	--	--	--	--	--	--	--	3.8E-03	5.4E-08	0.021	3.1E-07	7.8E-03	1.1E-07	--	--	943	0.014	1,103	0.016
Acetaldehyde	75-07-0	Yes	--	--	--	--	--	--	--	--	--	--	0.56	8.1E-06	3.20	4.6E-05	1.17	1.7E-05	--	--	18,232	0.26	18,243	0.26
Acetone	67-64-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,081	0.030	2,102	0.030
Acetophenone	98-86-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.94	4.2E-05	3.01	4.3E-05
Acrolein	107-02-8	Yes	--	--	--	--	--	--	--	--	--	--	0.024	3.5E-07	0.14	2.0E-06	0.051	7.3E-07	--	--	936	0.013	946	0.014
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	2.09	3.0E-05	11.8	1.7E-04	4.32	6.2E-05	--	--	18.3	2.6E-04	18.3	2.6E-04
Benzene	71-43-2	Yes	--	--	--	--	--	--	--	--	--	--	0.13	1.9E-06	0.76	1.1E-05	0.28	4.0E-06	3.62	5.2E-05	1,407	0.020	1,445	0.021
Carbon tetrachloride	56-23-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.8	2.0E-04	14.2	2.0E-04
Chlorine	7782-50-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,105	0.016	1,136	0.016
Butyl benzyl phthalate	85-68-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	37.5	5.4E-04	38.5	5.5E-04
Ethylene glycol monobutyl ether	111-76-2	Yes	66.0	9.5E-04	33.4	4.8E-04	99.4	1.4E-03	--	--	--	--	--	--	--	--	--	--	--	--	99.4	1.4E-03	99.4	1.4E-03
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.6E-03	1.1E-07	7.6E-03	1.1E-07
Dipropylene glycol monomethyl ether	34590-94-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,472	0.036	2,472	0.036
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.33	4.8E-06	0.33	4.8E-06
Chlorobenzene	108-90-7	Yes	--	--	--	--	--	--	--	--	--	--	1.4E-04	2.1E-09	8.2E-04	1.2E-08	3.0E-04	4.3E-09	--	--	23.2	3.3E-04	23.9	3.4E-04
Chloroform	67-66-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28.1	4.0E-04	28.9	4.2E-04
Crotonaldehyde	4170-30-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	106	1.5E-03	108	1.6E-03
Dibutyl phthalate	84-74-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46.6	6.7E-04	47.9	6.9E-04
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	23.5	3.4E-04	24.2	3.5E-04
Diethylphthalate	84-66-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61.0	8.8E-04	62.7	9.0E-04
Ethyl benzene	100-41-4	Yes	--	--	--	--	--	--	--	--	--	--	7.9E-03	1.1E-07	0.045	6.4E-07	0.016	2.3E-07	0.16	2.3E-06	17.3	2.5E-04	17.8	2.6E-04
Formaldehyde	50-00-0	Yes	--	--	--	--	--	--	--	--	--	--	1.24	1.8E-05	7.05	1.0E-04	2.57	3.7E-05	--	--	7,504	0.11	7,545	0.11
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	834	0.012	851	0.012
Isopropylbenzene (Cumene)	98-82-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.4E-03	1.2E-07	25.2	3.6E-04	25.9	3.7E-04
Hexane	110-54-3	Yes	--	--	--	--	--	--	--	--	--	--	0.019	2.8E-07	0.11	1.6E-06	0.040	5.8E-07	--	--	403	5.8E-03	414	6.0E-03
Isopropyl alcohol	67-63-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6,323	0.091	6,501	0.094
Methanol	67-56-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29,613	0.43	29,642	0.43
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.049	7.1E-07	0.049	7.1E-07	0.049	7.1E-07
Fluorides	239	Yes	--	--	--	--	--	--	0.24	3.4E-06	--	--	--	--	--	--	--	--	--	--	0.24	3.4E-06	0.24	3.4E-06
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.029	4.2E-07	0.029	4.2E-07	0.029	4.2E-07
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.00	8.6E-05	6.00	8.6E-05	6.00	8.6E-05
Bromomethane (Methyl bromide)	74-83-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.3	2.3E-04	16.8	2.4E-04
Chloromethane (Methyl chloride)	74-87-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63.0	9.1E-04	64.7	9.3E-04
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	0.16	2.3E-06	0.89	1.3E-05	0.32	4.7E-06	--	--	1.37	2.0E-05	1.37	2.0E-05
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	80.9	1.2E-03	83.1	1.2E-03
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	1.6E-06	0.87	1.3E-05	0.87	1.3E-05
Dichloromethane (Methylene chloride)	75-09-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	567	8.2E-03	582	8.4E-03
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66.1	9.5E-04	66.4	9.6E-04
Phenol	108-95-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	467	6.7E-03	473	6.8E-03
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	0.34	4.9E-06	1.92	2.8E-05	0.70	1.0E-05	--	--	2.96	4.3E-05	2.96	4.3E-05
Propionaldehyde	123-38-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	784	0.011	796	0.011
Styrene	100-42-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.6E-04	6.6E-09	671	9.6E-03	689	9.9E-03
Toluene	108-88-3	Yes	--	--	--	--	--	--	--	--	--	--	0.076	1.1E-06	0.43	6.2E-06	0.16	2.3E-06	2.56	3.7E-05	89.4	1.3E-03	89.9	1.3E-03
Xylene (mixture)	1330-20-7	Yes	--	--	--	--	--	--	--	--	--	--	0.031	4.4E-07	0.17	2.5E-06	0.063	9.1E-07	--	--	14.2	2.0E-04	14.5	2.1E-04
Vinyl Chloride	75-01-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25.7	3.7E-04	26.5	3.8E-04
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27.8	4.0E-04	28.6	4.1E-04
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.4	2.2E-04	15.4	2.2E-04
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.44	6.4E-06	15.9	2.3E-04	15.9	2.3E-04
o-Xylene	95-47-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16	2.4E-06	4.97	7.1E-05	4.97	7.1E-05
Hydrogen fluoride	7664-39-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	122	1.7E-03	120	1.7E-03
Hydrochloric acid	7647-01-0	Yes	--	--	--	--	--	--	--	--	--	--	0.13	1.9E-06	0.76	1.1E-05	0.28	4.0E-06	--	--	281	4.0E-03	119	1.7E-03
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	24.1	3.5E-04	33.6	4.8E-04	49.9	7.2E-04	--	--	108	1.5E-03	108	1.5E-03
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	0.026	3.8E-07	0.15	2.1E-06	0.054	7.8E-07	--	--	0.23	3.3E-06	0.23	3.3E-06
Acenaphthene	83-32-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11.6	1.7E-04	12.3	1.8E-04
Acenaphthylene	208-96-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64.0	9.2E-04	67.5	9.7E-04
Anthracene	120-12-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36.5	5.3E-04	38.5	5.5E-04
Benz[a]anthracene	56-55-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.11	1.6E-05	1.17	1.7E-05
Benzo[a]pyrene	50-32-8	Yes	--	--	--	--	--	--	--	--	--	--	2.5E-05	3.6E-10	1.4E-04	2.1E-09	5.3E-05	7.7E-10	--	--	7.72	1.1E-04	8.16	1.2E-04
Benzo[b]fluoranthene	205-99-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.94	2.8E-05	2.04	2.9E-05
Benzo[e]pyrene	192-97-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.88	4.1E-05	3.03	4.4E-05
Benzo[g,h,i]perylene	191-24-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.06	3.0E-05	2.17	3.1E-05
Benzo[j]fluoranthene	205-82-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.13	3.1E-05	2.24	3.2E-05
Benzo[k]fluoranthene	207-08-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.71	1.0E-05	0.74	1.1E-05
Chrysene	218-01-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.08	1.5E-05	1.14	1.6E-05
Fluoranthene	206-44-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22.8	3.3E-04	24.0	3.5E-04
Fluorene	86-73-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	41.0	5.9E-04	43.3	6.2E-04
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.39	2.0E-05	1.47	2.1E-05
2-Methyl naphthalene	91-57-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19.1	2.7E-04	20.1	2.9E-04
Naphthalene	91-20-3	Yes	--	--	--	--	--	--	--	--	--	--	0.014	2.0E-07	0.080	1.2E-06	0.029	4.2E-07	2.6E-03	3.8E-08	391	5.6E-03	411	5.9E-03
Perylene	198-55-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.44	6.3E-06	0.46	6.6E-06
Phenanthrene	85-01-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	88.1	1.3E-03	92.9	1.3E-03
Pyrene	129-00-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	48.3	6.9E-04	50.9	7.3E-04
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E-06	1.9E-11	1.4E-06	2.0E-11
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9E-06	2.7E-11	1.9E-06	2.8E-11
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2E-06	1.8E-11	1.3E-06	1.8E-11
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.9E-06	4.2E-11	3.0E-06	4.3E-11
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.1E-06	4.4E-11	3.2E-06	4.6E-11
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-05	2.0E-10	1.4E-05	2.0E-10
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.4E-05	4.9E-10	3.5E-05	5.1E-10
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E-05	1.6E-10	1.2E-05	1.7E-10
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.6E-06	8.0E-11	5.7E-06	8.3E-11
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.5E-06	1.2E-10	8.8E-06	1.3E-10
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.0E-06	7.2E-11	5.1E-06	7.4E-11
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.4E-06	6.4E-11	4.5E-06	6.5E-11
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.3E-07	1.3E-11	9.6E-07	1.4E-11
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.7E-06	5.4E-11	3.8E-06	5.5E-11
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.0E-06	1.1E-10	8.2E-06	1.2E-10
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E-06	1.6E-11	1.1E-06	1.7E-11
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0E-06	1.0E-10	7.2E-06	1.0E-10
Total PCBs	1336-36-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.011	1.6E-07	0.011	1.6E-07
3-Methylcholanthrene	56-49-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.012	1.7E-07	0.012	1.8E-07
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.4E-03	9.2E-08	6.6E-03	9.5E-08
1-Methylphenanthrene	832-69-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.36	5.2E-06	0.37	5.4E-06
2,4-Dinitrotoluene	121-14-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.32	1.9E-05	1.35	1.9E-05
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.94	4.2E-05	3.02	4.3E-05
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.065	9.4E-07	0.067	9.6E-07
Hydrogen cyanide	74-90-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28.7	4.1E-04	29.5	4.2E-04
di-n-octylphthalateb	518	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	2.2E-06	0.16	2.3E-06
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40.8	5.9E-04	42.0	6.0E-04
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	390	5.6E-03	401	5.8E-03
4-nitrophenol	100-02-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16	2.3E-06	0.16	2.4E-06
2-Chlorophenol	95-57-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.033	4.7E-07	0.034	4.9E-07
2,4-Dinitrophenol	51-28-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	3.6E-06	0.26	3.7E-06
Trichlorofluoromethane (Freon 11)	75-69-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19.4	2.8E-04	20.0	2.9E-04
2,4,6-Trichlorophenol	88-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.28	4.0E-06	0.29	4.1E-06
Pentachlorophenol	87-86-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	4.3E-06	0.31	4.4E-06
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34.4	4.9E-04	35.4	5.1E-04
Total TAC Emissions Estimate			**66.0**	**9.5E-04**	**33.4**	**4.8E-04**	**99.4**	**1.4E-03**	**2.06**	**3.0E-05**	**0.047**	**6.8E-07**	**29.0**	**4.2E-04**	**61.3**	**8.8E-04**	**60.0**	**8.6E-04**	**13.1**	**1.9E-04**	**81,511**	**1.17**	**81,918**	**1.18**

Notes

g/s = grams per second; lb/yr = pounds per year; RBC = risk-based concentration.

[a] Emission rate (g/s) = (annual emissions estimate [lb/yr]) x (453.592 g/lb) / (8,760 hrs/yr) / (3,600 s/hr)

[b] Total scrubber emissions (normal operations) (lb/yr) = (hogged fuel boiler scrubber normal emissions [lb/yr]) + (fuel dryer emissions [lb/yr])

[c] Total scrubber emissions (SU operations) (lb/yr) = (hogged fuel boiler scrubber normal emissions [lb/yr]) + (hogged fuel boiler scrubber SU emissions [lb/yr]) + (fuel dryer emissions [lb/yr])

[d] Model emission rate (kiln 1) (lb/yr) = (total kiln emission rate [lb/yr]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

[e] Model emission rate (kiln 2-6) (lb/yr) = (total kiln emission rate [lb/yr]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

[f] Bay door emissions (lb/yr) = (resin tank 4 [lb/yr] + (whitewater chest [lb/yr])

[g] Total paintline emissions (lb/yr) = (basecoat emissions [lb/yr]) + (topcoat emissions [lb/yr])

References

[1] Total scrubber (normal operation) scenario includes emission estimates from the scrub
[2] Total scrubber (SU operation) scenario includes emission estimates from the scrubber
[3] SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility
[4] SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-w
[5] See Attachment A of the Construction ACDP application.
[6] See Table 4-6, Kiln Emissions Allocation.
[7] Stimson Lumber Company is not proposing a change in emissions for this TEU.
[8] Emission rates representative of individual model volume sources and not entire kiln.

Table 4-3
Daily TAC Emission Rates
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Daily Emission Estimates																							
			Proposed Project Impacted TEUs																							
			Hogged Fuel Boiler (Normal Operations)				Hogged Fuel Boiler (SU Operations)				Fuel Dryer		Total Scrubber				Kilns Total		Kiln 1 (1)		Kilns 2-6 (1)		Existing Stud Mill Cyclone (S-182)		Proposed Sawmill Cyclone	
			ESP Control		Scrubber Control		Multi-Clone Control		Scrubber Control				Normal Operation (1)		SU Operation (2)											
			(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (b)	(g/s) (a)	(lb/day) (c)	(g/s) (a)	(lb/day) (2)	(g/s) (a)	(lb/day) (d)	(g/s) (a)	(lb/day) (e)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)
Model ID	--	--	HBLR_ESP		--		HBLR_MC		--		--		HBLR_SCR		HBLR_SCR_SU		--		KILN1.1 -1.4		KILN2.1 - 6.3		S_CYC		SM_CHP	
Antimony and compounds	7440-36-0	Yes	2.5E-03	1.3E-05	6.3E-03	3.3E-05	3.1E-03	1.6E-05	0.012	6.2E-05	--	--	6.3E-03	3.3E-05	0.018	9.5E-05	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	0.015	8.0E-05	0.035	1.8E-04	8.4E-03	4.4E-05	0.065	3.4E-04	--	--	0.035	1.8E-04	0.10	5.3E-04	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	6.70	0.035	4.17	0.022	4.75	0.025	7.80	0.041	--	--	4.17	0.022	12.0	0.063	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	2.3E-04	1.2E-06	2.2E-04	1.1E-06	1.3E-04	7.0E-07	4.1E-04	2.1E-06	--	--	2.2E-04	1.1E-06	6.2E-04	3.3E-06	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	2.6E-03	1.4E-05	0.010	5.3E-05	4.9E-03	2.6E-05	0.019	9.9E-05	--	--	0.010	5.3E-05	0.029	1.5E-04	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	2.2E-03	1.1E-05	7.4E-04	3.9E-06	6.8E-03	3.6E-05	1.4E-03	7.3E-06	--	--	7.4E-04	3.9E-06	2.1E-03	1.1E-05	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	Yes	0.016	8.4E-05	0.021	1.1E-04	1.6E-03	8.6E-06	0.038	2.0E-04	--	--	0.021	1.1E-04	0.059	3.1E-04	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	0.030	1.6E-04	0.057	3.0E-04	0.081	4.3E-04	0.11	5.6E-04	--	--	0.057	3.0E-04	0.16	8.6E-04	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	0.042	2.2E-04	0.095	5.0E-04	0.030	1.6E-04	0.18	9.3E-04	--	--	0.095	5.0E-04	0.27	1.4E-03	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	504	No	0.99	5.2E-03	0.33	1.7E-03	5.36	0.028	0.61	3.2E-03	--	--	0.33	1.7E-03	0.94	4.9E-03	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	0.77	4.0E-03	0.79	4.1E-03	1.82	9.5E-03	1.47	7.7E-03	--	--	0.79	4.1E-03	2.26	0.012	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	7.4E-03	3.9E-05	3.8E-03	2.0E-05	1.7E-03	9.1E-06	7.1E-03	3.7E-05	--	--	3.8E-03	2.0E-05	0.011	5.7E-05	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	0.100	5.2E-04	0.033	1.7E-04	3.1E-03	1.6E-05	0.061	3.2E-04	--	--	0.033	1.7E-04	0.094	4.9E-04	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	0.022	1.2E-04	0.023	1.2E-04	0.013	6.8E-05	0.043	2.3E-04	--	--	0.023	1.2E-04	0.066	3.5E-04	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	0.013	6.8E-05	5.4E-03	2.8E-05	7.1E-04	3.7E-06	0.010	5.3E-05	--	--	5.4E-03	2.8E-05	0.015	8.1E-05	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	0.032	1.7E-04	0.010	5.4E-05	0.92	4.8E-03	0.019	1.0E-04	--	--	0.010	5.4E-05	0.030	1.6E-04	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	0.059	3.1E-04	0.019	1.0E-04	1.8E-03	9.5E-06	0.036	1.9E-04	--	--	0.019	1.0E-04	0.056	2.9E-04	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	4.8E-03	2.5E-05	1.9E-03	9.8E-06	9.6E-04	5.1E-06	3.5E-03	1.8E-05	--	--	1.9E-03	9.8E-06	5.4E-03	2.8E-05	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	1.85	9.7E-03	2.45	0.013	0.56	2.9E-03	4.58	0.024	--	--	2.45	0.013	7.03	0.037	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	0.91	4.8E-03	0.30	1.6E-03	0.28	1.5E-03	0.56	2.9E-03	0.59	3.1E-03	0.89	4.7E-03	1.44	7.6E-03	118	0.62	2.68	0.014	7.16	0.038	--	--	--	--
Acetone	67-64-1	Yes	1.70	8.9E-03	0.56	2.9E-03	0.52	2.7E-03	1.04	5.5E-03	3.20	0.017	3.75	0.020	4.79	0.025	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	No	5.9E-03	3.1E-05	1.9E-03	1.0E-05	1.8E-03	9.5E-06	3.6E-03	1.9E-05	2.9E-03	1.5E-05	4.8E-03	2.5E-05	8.4E-03	4.4E-05	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	0.83	4.4E-03	0.27	1.4E-03	0.26	1.3E-03	0.51	2.7E-03	1.00	5.3E-03	1.27	6.7E-03	1.78	9.4E-03	1.88	9.9E-03	0.043	2.2E-04	0.11	6.0E-04	--	--	--	--
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	3.14	0.016	1.03	5.4E-03	0.96	5.1E-03	1.93	0.010	0.25	1.3E-03	1.28	6.7E-03	3.21	0.017	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	0.032	1.7E-04	0.010	5.4E-05	9.7E-03	5.1E-05	0.019	1.0E-04	--	--	0.010	5.4E-05	0.030	1.6E-04	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	2.53	0.013	0.83	4.4E-03	0.78	4.1E-03	1.55	8.2E-03	--	--	0.83	4.4E-03	2.38	0.013	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	0.086	4.5E-04	0.028	1.5E-04	0.026	1.4E-04	0.053	2.8E-04	--	--	0.028	1.5E-04	0.081	4.2E-04	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dipropylene glycol monomethyl ether	34590-94-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	2.7E-03	1.4E-05	2.7E-03	1.4E-05	2.7E-03	1.4E-05	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Yes	0.053	2.8E-04	0.017	9.2E-05	0.016	8.6E-05	0.033	1.7E-04	--	--	0.017	9.2E-05	0.050	2.6E-04	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	0.064	3.4E-04	0.021	1.1E-04	0.020	1.0E-04	0.040	2.1E-04	--	--	0.021	1.1E-04	0.061	3.2E-04	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	0.14	7.5E-04	0.047	2.5E-04	0.044	2.3E-04	0.088	4.6E-04	0.35	1.8E-03	0.39	2.1E-03	0.48	2.5E-03	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	0.11	5.6E-04	0.035	1.8E-04	0.033	1.7E-04	0.065	3.4E-04	--	--	0.035	1.8E-04	0.10	5.3E-04	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	0.054	2.8E-04	0.018	9.3E-05	0.017	8.7E-05	0.033	1.7E-04	--	--	0.018	9.3E-05	0.051	2.7E-04	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	0.14	7.3E-04	0.046	2.4E-04	0.043	2.2E-04	0.086	4.5E-04	--	--	0.046	2.4E-04	0.13	6.9E-04	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	0.039	2.1E-04	0.013	6.7E-05	0.012	6.3E-05	0.024	1.3E-04	--	--	0.013	6.7E-05	0.037	1.9E-04	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	3.37	0.018	1.10	5.8E-03	1.03	5.4E-03	2.06	0.011	0.31	1.6E-03	1.41	7.4E-03	3.48	0.018	7.64	0.040	0.17	9.1E-04	0.46	2.4E-03	--	--	--	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	1.43	7.5E-03	0.47	2.5E-03	0.44	2.3E-03	0.87	4.6E-03	0.25	1.3E-03	0.72	3.8E-03	1.59	8.4E-03	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene (Cumene)	98-82-8	Yes	0.057	3.0E-04	0.019	9.8E-05	0.017	9.1E-05	0.035	1.8E-04	3.5E-03	1.8E-05	0.022	1.2E-04	0.057	3.0E-04	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Yes	0.92	4.8E-03	0.30	1.6E-03	0.28	1.5E-03	0.57	3.0E-03	--	--	0.30	1.6E-03	0.87	4.6E-03	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	14.5	0.076	4.75	0.025	4.44	0.023	8.88	0.047	--	--	4.75	0.025	13.6	0.072	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	2.35	0.012	0.77	4.0E-03	0.72	3.8E-03	1.44	7.6E-03	0.094	4.9E-04	0.86	4.5E-03	2.30	0.012	240	1.26	5.46	0.029	14.6	0.076	0.37	1.9E-03	0.22	1.2E-03
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	0.036	1.9E-04	0.012	6.2E-05	0.011	5.8E-05	0.022	1.2E-04	4.2E-03	2.2E-05	0.016	8.5E-05	0.038	2.0E-04	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	0.14	7.3E-04	0.046	2.4E-04	0.043	2.2E-04	0.085	4.5E-04	0.017	9.1E-05	0.063	3.3E-04	0.15	7.8E-04	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	0.19	9.7E-04	0.061	3.2E-04	0.057	3.0E-04	0.11	6.0E-04	--	--	0.061	3.2E-04	0.17	9.2E-04	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	6.1E-03	3.2E-05	6.1E-03	3.2E-05	6.1E-03	3.2E-05	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	1.28	6.7E-03	0.42	2.2E-03	0.39	2.1E-03	0.78	4.1E-03	0.080	4.2E-04	0.50	2.6E-03	1.28	6.7E-03	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	0.022	1.2E-04	7.3E-03	3.8E-05	6.8E-03	3.6E-05	0.014	7.2E-05	0.20	1.0E-03	0.20	1.1E-03	0.22	1.1E-03	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	0.51	2.7E-03	0.17	8.8E-04	0.16	8.3E-04	0.31	1.7E-03	1.84	9.6E-03	2.01	0.011	2.32	0.012	--	--	--	--	--	--	--	--	--	--
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	Yes	1.00	5.2E-03	0.33	1.7E-03	0.31	1.6E-03	0.61	3.2E-03	0.33	1.7E-03	0.66	3.4E-03	1.27	6.6E-03	1.26	6.6E-03	0.029	1.5E-04	0.076	4.0E-04	--	--	--	--
Styrene	100-42-5	Yes	1.50	7.9E-03	0.49	2.6E-03	0.46	2.4E-03	0.92	4.8E-03	0.011	5.8E-05	0.50	2.6E-03	1.43	7.5E-03	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Yes	0.037	1.9E-04	0.012	6.3E-05	0.011	5.9E-05	0.022	1.2E-04	0.41	2.1E-03	0.42	2.2E-03	0.44	2.3E-03	--	--	--	--	--	--	--	--	--	--
Xylene (mixture)	1330-20-7	Yes	0.017	8.8E-05	5.5E-03	2.9E-05	5.1E-03	2.7E-05	0.010	5.4E-05	--	--	5.5E-03	2.9E-05	0.016	8.3E-05	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	0.059	3.1E-04	0.019	1.0E-04	0.018	9.5E-05	0.036	1.9E-04	--	--	0.019	1.0E-04	0.056	2.9E-04	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	0.064	3.3E-04	0.021	1.1E-04	0.020	1.0E-04	0.039	2.1E-04	--	--	0.021	1.1E-04	0.060	3.2E-04	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	0.12	6.5E-04	0.12	6.5E-04	0.12	6.5E-04	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	0.12	6.5E-04	0.12	6.5E-04	0.12	6.5E-04	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	--	--	--	--	--	--	--	--	2.2E-03	1.1E-05	2.2E-03	1.1E-05	2.2E-03	1.1E-05	--	--	--	--	--	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	0.29	1.5E-03	0.027	1.4E-04	0.089	4.7E-04	0.050	2.6E-04	--	--	0.027	1.4E-04	0.077	4.0E-04	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	0.25	1.3E-03	0.12	6.5E-04	4.28	0.022	0.23	1.2E-03	--	--	0.12	6.5E-04	0.36	1.9E-03	--	--	--	--	--	--	--	--	--	--
DPM	200	Yes	--	--	ERROR	--	ERROR	--	ERROR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	Yes	--	--	ERROR	--	ERROR	--	ERROR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	0.027	1.4E-04	9.0E-03	4.7E-05	8.4E-04	4.4E-06	0.017	8.8E-05	--	--	9.0E-03	4.7E-05	0.026	1.4E-04	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	0.15	7.9E-04	0.049	2.6E-04	4.6E-03	2.4E-05	0.092	4.8E-04	--	--	0.049	2.6E-04	0.14	7.4E-04	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	0.086	4.5E-04	0.028	1.5E-04	2.6E-03	1.4E-05	0.053	2.8E-04	--	--	0.028	1.5E-04	0.081	4.2E-04	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	Yes	2.6E-03	1.4E-05	8.5E-04	4.5E-06	8.0E-05	4.2E-07	1.6E-03	8.4E-06	--	--	8.5E-04	4.5E-06	2.5E-03	1.3E-05	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	0.018	9.3E-05	7.0E-03	3.7E-05	2.2E-03	1.1E-05	0.013	6.9E-05	--	--	7.0E-03	3.7E-05	0.020	1.1E-04	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	Yes	4.6E-03	2.4E-05	1.5E-03	7.8E-06	1.4E-04	7.3E-07	2.8E-03	1.5E-05	--	--	1.5E-03	7.8E-06	4.3E-03	2.2E-05	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	6.8E-03	3.6E-05	2.2E-03	1.2E-05	2.1E-04	1.1E-06	4.1E-03	2.2E-05	--	--	2.2E-03	1.2E-05	6.4E-03	3.3E-05	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	4.8E-03	2.5E-05	1.6E-03	8.3E-06	1.5E-04	7.8E-07	3.0E-03	1.6E-05	--	--	1.6E-03	8.3E-06	4.6E-03	2.4E-05	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	Yes	5.0E-03	2.6E-05	1.6E-03	8.6E-06	1.5E-04	8.0E-07	3.1E-03	1.6E-05	--	--	1.6E-03	8.6E-06	4.7E-03	2.5E-05	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	Yes	1.7E-03	8.7E-06	5.4E-04	2.9E-06	5.1E-05	2.7E-07	1.0E-03	5.3E-06	--	--	5.4E-04	2.9E-06	1.6E-03	8.2E-06	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	Yes	2.5E-03	1.3E-05	8.3E-04	4.4E-06	7.8E-05	4.1E-07	1.6E-03	8.2E-06	--	--	8.3E-04	4.4E-06	2.4E-03	1.3E-05	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	Yes	0.054	2.8E-04	0.018	9.2E-05	1.6E-03	8.6E-06	0.033	1.7E-04	--	--	0.018	9.2E-05	0.050	2.6E-04	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	0.096	5.1E-04	0.032	1.7E-04	3.0E-03	1.6E-05	0.059	3.1E-04	--	--	0.032	1.7E-04	0.091	4.8E-04	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	3.3E-03	1.7E-05	1.1E-03	5.6E-06	1.0E-04	5.3E-07	2.0E-03	1.1E-05	--	--	1.1E-03	5.6E-06	3.1E-03	1.6E-05	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	0.045	2.4E-04	0.015	7.7E-05	1.4E-03	7.2E-06	0.028	1.4E-04	--	--	0.015	7.7E-05	0.042	2.2E-04	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	0.80	4.2E-03	0.31	1.6E-03	0.098	5.1E-04	0.59	3.1E-03	0.36	1.9E-03	0.67	3.5E-03	1.26	6.6E-03	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	1.0E-03	5.4E-06	3.4E-04	1.8E-06	3.1E-05	1.7E-07	6.3E-04	3.3E-06	--	--	3.4E-04	1.8E-06	9.7E-04	5.1E-06	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	0.21	1.1E-03	0.068	3.6E-04	6.3E-03	3.3E-05	0.13	6.7E-04	--	--	0.068	3.6E-04	0.19	1.0E-03	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	0.11	6.0E-04	0.037	2.0E-04	3.5E-03	1.8E-05	0.070	3.7E-04	--	--	0.037	2.0E-04	0.11	5.6E-04	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	3.1E-09	1.6E-11	1.0E-09	5.3E-12	9.4E-10	4.9E-12	1.9E-09	9.8E-12	--	--	1.0E-09	5.3E-12	2.9E-09	1.5E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	4.3E-09	2.2E-11	1.4E-09	7.3E-12	1.3E-09	6.9E-12	2.6E-09	1.4E-11	--	--	1.4E-09	7.3E-12	4.0E-09	2.1E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	2.8E-09	1.5E-11	9.1E-10	4.8E-12	8.5E-10	4.5E-12	1.7E-09	9.0E-12	--	--	9.1E-10	4.8E-12	2.6E-09	1.4E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	6.7E-09	3.5E-11	2.2E-09	1.2E-11	2.1E-09	1.1E-11	4.1E-09	2.2E-11	--	--	2.2E-09	1.2E-11	6.3E-09	3.3E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	7.1E-09	3.7E-11	2.3E-09	1.2E-11	2.2E-09	1.1E-11	4.3E-09	2.3E-11	--	--	2.3E-09	1.2E-11	6.7E-09	3.5E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	3.1E-08	1.6E-10	1.0E-08	5.4E-11	9.6E-09	5.0E-11	1.9E-08	1.0E-10	--	--	1.0E-08	5.4E-11	2.9E-08	1.5E-10	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	7.9E-08	4.1E-10	2.6E-08	1.4E-10	2.4E-08	1.3E-10	4.8E-08	2.5E-10	--	--	2.6E-08	1.4E-10	7.4E-08	3.9E-10	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	2.6E-08	1.4E-10	8.5E-09	4.4E-11	7.9E-09	4.1E-11	1.6E-08	8.3E-11	--	--	8.5E-09	4.4E-11	2.4E-08	1.3E-10	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	1.3E-08	6.7E-11	4.2E-09	2.2E-11	3.9E-09	2.1E-11	7.8E-09	4.1E-11	--	--	4.2E-09	2.2E-11	1.2E-08	6.3E-11	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	2.0E-08	1.0E-10	6.4E-09	3.4E-11	6.0E-09	3.1E-11	1.2E-08	6.3E-11	--	--	6.4E-09	3.4E-11	1.8E-08	9.6E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	1.1E-08	6.0E-11	3.7E-09	2.0E-11	3.5E-09	1.8E-11	7.0E-09	3.7E-11	--	--	3.7E-09	2.0E-11	1.1E-08	5.6E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	1.0E-08	5.3E-11	3.3E-09	1.7E-11	3.1E-09	1.6E-11	6.2E-09	3.3E-11	--	--	3.3E-09	1.7E-11	9.5E-09	5.0E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	2.1E-09	1.1E-11	7.0E-10	3.7E-12	6.6E-10	3.4E-12	1.3E-09	6.9E-12	--	--	7.0E-10	3.7E-12	2.0E-09	1.1E-11	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	8.5E-09	4.5E-11	2.8E-09	1.5E-11	2.6E-09	1.4E-11	5.2E-09	2.7E-11	--	--	2.8E-09	1.5E-11	8.0E-09	4.2E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	1.8E-08	9.6E-11	6.0E-09	3.2E-11	5.6E-09	2.9E-11	1.1E-08	5.9E-11	--	--	6.0E-09	3.2E-11	1.7E-08	9.0E-11	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	2.6E-09	1.3E-11	8.4E-10	4.4E-12	7.8E-10	4.1E-12	1.6E-09	8.2E-12	--	--	8.4E-10	4.4E-12	2.4E-09	1.3E-11	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	1.6E-08	8.4E-11	5.3E-09	2.8E-11	4.9E-09	2.6E-11	9.8E-09	5.2E-11	--	--	5.3E-09	2.8E-11	1.5E-08	7.9E-11	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	Yes	2.5E-05	1.3E-07	8.3E-06	4.3E-08	7.7E-06	4.1E-08	1.5E-05	8.1E-08	--	--	8.3E-06	4.3E-08	2.4E-05	1.2E-07	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	Yes	2.8E-05	1.5E-07	9.1E-06	4.8E-08	8.5E-06	4.5E-08	1.7E-05	9.0E-08	--	--	9.1E-06	4.8E-08	2.6E-05	1.4E-07	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	1.5E-05	7.7E-08	4.8E-06	2.5E-08	4.5E-06	2.4E-08	9.0E-06	4.7E-08	--	--	4.8E-06	2.5E-08	1.4E-05	7.2E-08	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	8.3E-04	4.4E-06	2.7E-04	1.4E-06	2.5E-04	1.3E-06	5.1E-04	2.7E-06	--	--	2.7E-04	1.4E-06	7.8E-04	4.1E-06	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Yes	3.0E-03	1.6E-05	9.9E-04	5.2E-06	9.3E-04	4.9E-06	1.9E-03	9.7E-06	--	--	9.9E-04	5.2E-06	2.8E-03	1.5E-05	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	6.7E-03	3.5E-05	2.2E-03	1.2E-05	2.1E-03	1.1E-05	4.1E-03	2.2E-05	--	--	2.2E-03	1.2E-05	6.3E-03	3.3E-05	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	1.5E-04	7.8E-07	4.9E-05	2.6E-07	4.6E-05	2.4E-07	9.1E-05	4.8E-07	--	--	4.9E-05	2.6E-07	1.4E-04	7.4E-07	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	0.066	3.4E-04	0.022	1.1E-04	0.020	1.1E-04	0.040	2.1E-04	--	--	0.022	1.1E-04	0.062	3.2E-04	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	3.5E-04	1.9E-06	1.2E-04	6.1E-07	1.1E-04	5.7E-07	2.2E-04	1.1E-06	--	--	1.2E-04	6.1E-07	3.3E-04	1.7E-06	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	0.094	4.9E-04	0.031	1.6E-04	0.029	1.5E-04	0.057	3.0E-04	--	--	0.031	1.6E-04	0.088	4.6E-04	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	0.89	4.7E-03	0.29	1.5E-03	0.27	1.4E-03	0.55	2.9E-03	--	--	0.29	1.5E-03	0.84	4.4E-03	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	3.7E-04	1.9E-06	1.2E-04	6.3E-07	1.1E-04	5.9E-07	2.2E-04	1.2E-06	--	--	1.2E-04	6.3E-07	3.4E-04	1.8E-06	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	7.5E-05	4.0E-07	2.5E-05	1.3E-07	2.3E-05	1.2E-07	4.6E-05	2.4E-07	--	--	2.5E-05	1.3E-07	7.1E-05	3.7E-07	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	5.8E-04	3.0E-06	1.9E-04	9.9E-07	1.8E-04	9.3E-07	3.5E-04	1.9E-06	--	--	1.9E-04	9.9E-07	5.4E-04	2.9E-06	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	0.045	2.3E-04	0.015	7.7E-05	0.014	7.2E-05	0.027	1.4E-04	--	--	0.015	7.7E-05	0.042	2.2E-04	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Yes	6.4E-04	3.4E-06	2.1E-04	1.1E-06	2.0E-04	1.0E-06	3.9E-04	2.1E-06	--	--	2.1E-04	1.1E-06	6.0E-04	3.2E-06	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	Yes	6.9E-04	3.6E-06	2.3E-04	1.2E-06	2.1E-04	1.1E-06	4.2E-04	2.2E-06	--	--	2.3E-04	1.2E-06	6.5E-04	3.4E-06	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	0.079	4.1E-04	0.026	1.4E-04	0.024	1.3E-04	0.048	2.5E-04	--	--	0.026	1.4E-04	0.074	3.9E-04	--	--	--	--	--	--	--	--	--	--
Total TAC Emissions Estimate			**51.3**	**0.27**	**21.4**	**0.11**	**29.9**	**0.16**	**40.0**	**0.21**	**9.54**	**0.050**	**31.0**	**0.16**	**71.0**	**0.37**	**369**	**1.94**	**8.39** (8)	**0.044**	**22.4** (8)	**0.12**	**0.37**	**1.9E-03**	**0.22**	**1.2E-03**

Notes

g/s = grams per second; lb/day = pounds per day; RBC = risk-based concentration.

(a) Emission rate (g/s) = (daily emissions estimate [lb/day]) x (453.592 g/lb) / (24 hrs/day) / (3,600 s/hr)

(b) Total scrubber emissions (normal operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (fuel dryer emissions [lb/day])

(c) Total scrubber emissions (SU operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (hogged fuel boiler scrubber SU emissions [lb/day]) + (fuel dryer emissions [lb/day])

(d) Model emission rate (kiln 1) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

(e) Model emission rate (kiln 2-6) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

(f) Bay door emissions (lb/day) = (resin tank 4 [lb/day] + (whitewater chest [lb/day])

(g) Total paintline emissions (lb/day) = (basecoat emissions [lb/day]) + (topcoat emissions [lb/day])

References

(1) Total scrubber (normal operation) scenario includes emission estimates from the scrubber (normal operations) and fuel dryer.

(2) Total scrubber (SU operation) scenario includes emission estimates from the scrubber (normal operations), scrubber (SU operations), and fuel dryer.

(3) SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility-wide emissions assuming normal operations.

(4) SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-wide emissions assuming normal operations.

(5) See Attachment A of the Construction ACDP application.

(6) See Table 4-6, Kiln Emissions Allocation.

(7) Stimson Lumber Company is not proposing a change in emissions for this TEU.

(8) Emission rates representative of individual model volume sources and not entire kiln.

Table 4-3
Daily TAC Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Daily Emission Estimates																							
			Existing TEUs with Proposed Changes Not Associated with the Proposed Project																							
			Lumber Surface Protection		Press				Refiner				Resin Storage Tanks								HBWW - Whitewater Chest		Bay Door	
					Stack		Fugitives		Rotary Valve		Scrubber 5		Tank 1		Tank 2		Tank 3		Tank 4					
			(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (5)	(g/s) (a)	(lb/day) (7)	(g/s) (a)	(lb/day) (f)	(g/s) (a)
Model ID	--	--	LSP		PVUV_STK		HPVUV_FUG		RF12_RV		RF12_STK		RESIN1		RESIN2		RESIN3		RESIN4		--		WHITE	
Antimony and compounds	7440-36-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	504	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	--	--	1.91	0.010	0.11	5.9E-04	0.24	1.2E-03	5.06	0.027	--	--	--	--	--	--	--	--	0.044	2.3E-04	0.044	2.3E-04
Acetone	67-64-1	Yes	--	--	2.26	0.012	0.039	2.0E-04	0.77	4.0E-03	0.61	3.2E-03	--	--	--	--	--	--	--	--	0.017	8.8E-05	0.017	8.8E-05
Acetophenone	98-86-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	--	--	--	--	--	--	--	--	0.56	2.9E-03	--	--	--	--	--	--	--	--	3.2E-22	1.7E-24	3.2E-22	1.7E-24
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6E-04	3.5E-06	--	--	6.6E-04	3.5E-06
Dipropylene glycol monomethyl ether	34590-94-8	No	28.5	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	--	--	26.4	0.14	0.099	5.2E-04	0.065	3.4E-04	0.54	2.8E-03	1.30	6.8E-03	1.42	7.5E-03	1.43	7.5E-03	--	--	0.044	2.3E-04	0.044	2.3E-04
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	--	--	--	--	--	--	0.047	2.5E-04	0.045	2.4E-04	--	--	--	--	--	--	--	--	4.3E-03	2.3E-05	4.3E-03	2.3E-05
Isopropylbenzene (Cumene)	98-82-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	--	--	21.3	0.11	1.69	8.9E-03	0.23	1.2E-03	0.31	1.6E-03	0.18	9.3E-04	0.19	1.0E-03	0.19	1.0E-03	--	--	--	--	--	--
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	--	--	--	--	--	--	0.046	2.4E-04	0.026	1.3E-04	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	--	--	--	--	0.070	3.7E-04	--	--	--	--	2.0E-04	1.1E-06	2.2E-04	1.2E-06	2.2E-04	1.2E-06	--	--	6.8E-04	3.6E-06	6.8E-04	3.6E-06
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	Yes	--	--	--	--	--	--	--	--	0.069	3.6E-04	--	--	--	--	--	--	--	--	1.8E-03	9.7E-06	1.8E-03	9.7E-06
Styrene	100-42-5	Yes	--	--	--	--	--	--	0.033	1.8E-04	0.033	1.8E-04	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Yes	--	--	--	--	7.7E-03	4.1E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene (mixture)	1330-20-7	Yes	--	--	--	--	0.037	2.0E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	--	--	--	--	0.025	1.3E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TAC Emissions Estimate			**28.5**	**0.15**	**51.9**	**0.27**	**2.08**	**0.011**	**1.43**	**7.5E-03**	**7.25**	**0.038**	**1.48**	**7.8E-03**	**1.61**	**8.5E-03**	**1.62**	**8.5E-03**	**6.6E-04**	**3.5E-06**	**0.11**	**5.9E-04**	**0.11**	**5.9E-04**

Notes

g/s = grams per second; lb/day = pounds per day; RBC = risk-based concentration.

(a) Emission rate (g/s) = (daily emissions estimate [lb/day]) x (453.592 g/lb) / (24 hrs/day) / (3,600 s/hr)

(b) Total scrubber emissions (normal operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (fuel dryer emissions [lb/day])

(c) Total scrubber emissions (SU operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (hogged fuel boiler scrubber SU emissions [lb/day]) + (fuel dryer emissions [lb/day])

(d) Model emission rate (kiln 1) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

(e) Model emission rate (kiln 2-6) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

(f) Bay door emissions (lb/day) = (resin tank 4 [lb/day] + (whitewater chest [lb/day])

(g) Total paintline emissions (lb/day) = (basecoat emissions [lb/day]) + (topcoat emissions [lb/day])

References

(1) Total scrubber (normal operation) scenario includes emission estimates from the scrub

(2) Total scrubber (SU operation) scenario includes emission estimates from the scrubber

(3) SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility

(4) SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-w

(5) See Attachment A of the Construction ACDP application.

(6) See Table 4-6, Kiln Emissions Allocation.

(7) Stimson Lumber Company is not proposing a change in emissions for this TEU.

(8) Emission rates representative of individual model volume sources and not entire kiln.

Table 4-3
Daily TAC Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Daily Emission Estimates																									
			Existing TEU's with No Change																									
			Forming Line				Hardboard Waste Water				WW - Hydrosieves		BLR-SCR - Hydrosieves		Wastewater Treatment System													
			Stack		Fugitives		Machine Chest		Head Box						Surge Pond		Aeration Basin		Secondary Clarifier		Sludge Pit Conveyor		Sludge Pond		Resue Pond		East Pond	
			(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]	(lb/day) [7]	(g/s) [a]
Model ID	--	--	FORM_STK		FORM_FUG		MACH		HEADBOX		HYDRO		SCR_HYDRO		SURGE		ABASE		CLAR		PIT		S_POND		R_POND		E_POND	
Antimony and compounds	7440-36-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	504	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	1.33	7.0E-03	0.13	7.0E-04	0.68	3.6E-03	0.19	1.0E-03	0.31	1.6E-03	2.9E-03	1.5E-05	0.55	2.9E-03	0.023	1.2E-04	3.6E-04	1.9E-06	9.1E-07	4.8E-09	6.5E-05	3.4E-07	3.4E-05	1.8E-07	4.6E-05	2.4E-07
Acetone	67-64-1	Yes	0.59	3.1E-03	0.059	3.1E-04	0.23	1.2E-03	0.051	2.7E-04	0.037	1.9E-04	7.5E-03	3.9E-05	0.021	1.1E-04	1.1E-04	5.6E-07	2.1E-06	1.1E-08	6.4E-22	3.4E-24	8.1E-08	4.3E-10	1.5E-08	8.1E-11	1.7E-08	9.1E-11
Acetophenone	98-86-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	0.11	5.9E-04	0.011	5.9E-05	0.081	4.3E-04	1.9E-21	1.0E-23	3.1E-21	1.6E-23	0.020	1.0E-04	2.5E-21	1.3E-23	7.0E-23	3.7E-25	9.9E-25	5.2E-27	1.6E-22	8.6E-25	5.4E-21	2.8E-23	2.1E-21	1.1E-23	2.7E-21	1.4E-23
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dipropylene glycol monomethyl ether	34590-94-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	0.53	2.8E-03	0.053	2.8E-04	0.15	8.1E-04	0.036	1.9E-04	0.017	8.8E-05	1.5E-04	7.7E-07	0.21	1.1E-03	3.0E-03	1.6E-05	4.8E-05	2.5E-07	5.9E-08	3.1E-10	1.5E-05	8.1E-08	1.3E-05	6.7E-08	1.6E-05	8.6E-08
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	0.042	2.2E-04	4.2E-03	2.2E-05	0.19	9.8E-04	0.067	3.5E-04	0.14	7.3E-04	6.7E-04	3.5E-06	0.021	1.1E-04	1.2E-03	6.4E-06	8.3E-06	4.3E-08	5.0E-08	2.6E-10	5.7E-07	3.0E-09	1.7E-07	9.1E-10	2.2E-07	1.2E-09
Isopropylbenzene (Cumene)	98-82-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	3.01	0.016	0.30	1.6E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	0.083	4.3E-04	8.3E-03	4.3E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	--	--	--	--	8.8E-04	4.6E-06	4.1E-04	2.1E-06	4.4E-04	2.3E-06	4.3E-05	2.2E-07	1.7E-05	8.8E-08	3.7E-09	2.0E-11	7.6E-11	4.0E-13	5.3E-14	2.8E-16	3.5E-13	1.8E-15	8.8E-15	4.6E-17	1.0E-14	5.4E-17
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	Yes	--	--	--	--	0.024	1.3E-04	7.2E-03	3.8E-05	0.011	5.9E-05	8.6E-03	4.5E-05	0.018	9.7E-05	5.4E-04	2.9E-06	9.4E-06	4.9E-08	2.0E-08	1.0E-10	1.5E-06	7.7E-09	7.2E-07	3.8E-09	9.7E-07	5.1E-09
Styrene	100-42-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	Yes	0.083	4.4E-04	8.3E-03	4.4E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene (mixture)	1330-20-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TAC Emissions Estimate			**5.78**	**0.030**	**0.58**	**3.0E-03**	**1.36**	**7.1E-03**	**0.36**	**1.9E-03**	**0.51**	**2.7E-03**	**0.040**	**2.1E-04**	**0.82**	**4.3E-03**	**0.028**	**1.5E-04**	**4.3E-04**	**2.3E-06**	**1.0E-06**	**5.5E-09**	**8.2E-05**	**4.3E-07**	**4.8E-05**	**2.5E-07**	**6.4E-05**	**3.4E-07**

Notes

g/s = grams per second; lb/day = pounds per day; RBC = risk-based concentration.

[a] Emission rate (g/s) = (daily emissions estimate [lb/day]) x (453.592 g/lb) / (24 hrs/day) / (3,600 s/hr)

[b] Total scrubber emissions (normal operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (fuel dryer emissions [lb/day])

[c] Total scrubber emissions (SU operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (hogged fuel boiler scrubber SU emissions [lb/day]) + (fuel dryer emissions [lb/day])

[d] Model emission rate (kiln 1) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

[e] Model emission rate (kiln 2-6) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

[f] Bay door emissions (lb/day) = (resin tank 4 [lb/day] + (whitewater chest [lb/day])

[g] Total paintline emissions (lb/day) = (basecoat emissions [lb/day]) + (topcoat emissions [lb/day])

References

[1] Total scrubber (normal operation) scenario includes emission estimates from the scrub

[2] Total scrubber (SU operation) scenario includes emission estimates from the scrubber

[3] SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility

[4] SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-w

[5] See Attachment A of the Construction ACDP application.

[6] See Table 4-6, Kiln Emissions Allocation.

[7] Stimson Lumber Company is not proposing a change in emissions for this TEU.

[8] Emission rates representative of individual model volume sources and not entire kiln.

Table 4-3
Daily TAC Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	RBC? (Yes/No)	Daily Emission Estimates – Existing TEU's with No Change – Basecoat (lb/day) (7)	Basecoat (g/s) (a)	Topcoat (lb/day) (7)	Topcoat (g/s) (a)	Paintline Total (lb/day) (g)	Paintline Total (g/s) (a)	Welding (lb/day) (7)	Welding (g/s) (a)	Babbitt Pot (lb/day) (7)	Babbitt Pot (g/s) (a)	Fire Pump (lb/day) (7)	Fire Pump (g/s) (a)	Backup Generator (lb/day) (7)	Backup Generator (g/s) (a)	Proposed Emergency Generator (lb/day) (7)	Proposed Emergency Generator (g/s) (a)	Gas Storage Tank (lb/day) (7)	Gas Storage Tank (g/s) (a)	Facility Total – Multi-Clone SU Scenario (3) (lb/day)	Multi-Clone SU Scenario (3) (g/s)	Facility Total – Scrubber SU Scenario (4) (lb/day)	Scrubber SU Scenario (4) (g/s)
Model ID	--	--	--		--		PAINT		WELD		BPOT		FIRE		BGEN		EGEN01		GAS		--	--	--	--
Antimony and compounds	7440-36-0	Yes	--	--	--	--	--	--	--	--	6.8E-04	3.5E-06	4.6E-06	2.4E-08	2.6E-05	1.4E-07	1.1E-04	6.0E-07	--	--	0.013	6.6E-05	0.021	1.1E-04
Arsenic and compounds	7440-38-2	Yes	--	--	--	--	--	--	--	--	--	--	2.3E-05	1.2E-07	1.3E-04	6.9E-07	5.7E-04	3.0E-06	--	--	0.059	3.1E-04	0.12	6.1E-04
Barium and compounds	7440-39-3	No	--	--	--	--	--	--	--	--	--	--	5.4E-06	2.8E-08	3.1E-05	1.6E-07	1.3E-04	7.0E-07	--	--	15.6	0.082	18.7	0.098
Beryllium and compounds	7440-41-7	Yes	--	--	--	--	--	--	--	--	--	--	6.9E-08	3.6E-10	3.9E-07	2.0E-09	1.7E-06	9.0E-09	--	--	5.8E-04	3.0E-06	8.5E-04	4.5E-06
Cadmium and compounds	7440-43-9	Yes	--	--	--	--	--	--	--	--	--	--	2.2E-05	1.1E-07	1.2E-04	6.4E-07	5.4E-04	2.8E-06	--	--	0.018	9.6E-05	0.032	1.7E-04
Chromium VI	18540-29-9	Yes	--	--	--	--	--	--	1.4E-03	7.1E-06	--	--	1.4E-06	7.6E-09	8.2E-06	4.3E-08	3.6E-05	1.9E-07	--	--	0.011	5.9E-05	5.7E-03	3.0E-05
Cobalt and compounds	7440-48-4	Yes	--	--	--	--	--	--	2.5E-04	1.3E-06	--	--	2.3E-07	1.2E-09	1.3E-06	6.8E-09	5.6E-06	3.0E-08	--	--	0.038	2.0E-04	0.075	3.9E-04
Aluminum and compounds	7429-90-5	Yes	--	--	--	--	--	--	0.092	4.8E-04	--	--	--	--	--	--	--	--	--	--	0.092	4.8E-04	0.092	4.8E-04
Zinc oxide	1314-13-2	No	--	--	--	--	--	--	2.5E-04	1.3E-06	--	--	--	--	--	--	--	--	--	--	2.5E-04	1.3E-06	2.5E-04	1.3E-06
Copper and compounds	7440-50-8	Yes	--	--	--	--	--	--	2.5E-04	1.3E-06	6.8E-04	3.5E-06	5.9E-05	3.1E-07	3.3E-04	1.8E-06	1.5E-03	7.7E-06	--	--	0.17	9.0E-04	0.20	1.0E-03
Lead and compounds	7439-92-1	Yes	--	--	--	--	--	--	--	--	--	--	1.2E-04	6.3E-07	6.8E-04	3.6E-06	3.0E-03	1.6E-05	--	--	0.17	9.0E-04	0.32	1.7E-03
Phosphorus and compounds	504	No	--	--	--	--	--	--	--	--	--	--	1.2E-04	6.4E-07	6.9E-04	3.6E-06	3.0E-03	1.6E-05	--	--	6.68	0.035	1.93	0.010
Manganese and compounds	7439-96-5	Yes	--	--	--	--	--	--	3.0E-03	1.5E-05	--	--	4.5E-05	2.3E-07	2.5E-04	1.3E-06	1.1E-03	5.8E-06	--	--	3.38	0.018	3.03	0.016
Mercury and compounds	7439-97-6	Yes	--	--	--	--	--	--	--	--	--	--	2.9E-05	1.5E-07	1.6E-04	8.6E-07	7.2E-04	3.8E-06	--	--	0.014	7.2E-05	0.019	1.0E-04
Molybdenum trioxide	1313-27-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	7.1E-04	0.19	1.0E-03
Nickel and compounds	365	Yes	--	--	--	--	--	--	0.011	5.9E-05	6.8E-05	3.5E-07	5.6E-05	2.9E-07	3.2E-04	1.7E-06	1.4E-03	7.3E-06	--	--	0.072	3.8E-04	0.10	5.4E-04
Selenium and compounds	7782-49-2	Yes	--	--	--	--	--	--	--	--	--	--	3.2E-05	1.7E-07	1.8E-04	9.4E-07	7.9E-04	4.1E-06	--	--	0.020	1.1E-04	0.029	1.5E-04
Silver and compounds	7440-22-4	No	--	--	--	--	--	--	--	--	--	--	6.9E-07	3.6E-09	3.9E-06	2.1E-08	1.7E-05	9.0E-08	--	--	0.96	5.1E-03	0.061	3.2E-04
Thallium and compounds	7440-28-0	No	--	--	--	--	--	--	--	--	--	--	3.5E-06	1.8E-08	2.0E-05	1.0E-07	8.6E-05	4.5E-07	--	--	0.081	4.2E-04	0.12	6.0E-04
Vanadium (fume or dust)	7440-62-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.6E-03	4.0E-05	0.010	5.3E-05
Zinc and compounds	7440-66-6	No	--	--	--	--	--	--	--	--	--	--	7.5E-05	4.0E-07	4.3E-04	2.2E-06	1.9E-03	9.8E-06	--	--	4.86	0.026	8.88	0.047
Acetaldehyde	75-07-0	Yes	--	--	--	--	--	--	--	--	--	--	0.011	5.9E-05	0.064	3.4E-04	0.28	1.5E-03	--	--	131	0.69	131	0.69
Acetone	67-64-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.7	0.056	11.2	0.059
Acetophenone	98-86-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.013	6.6E-05	0.014	7.5E-05
Acrolein	107-02-8	Yes	--	--	--	--	--	--	--	--	--	--	4.9E-04	2.6E-06	2.8E-03	1.5E-05	0.012	6.4E-05	--	--	5.04	0.026	5.30	0.028
Ammonia	7664-41-7	Yes	--	--	--	--	--	--	--	--	--	--	0.042	2.2E-04	0.24	1.2E-03	1.04	5.4E-03	--	--	1.32	6.9E-03	1.32	6.9E-03
Benzene	71-43-2	Yes	--	--	--	--	--	--	--	--	--	--	2.7E-03	1.4E-05	0.015	8.0E-05	0.067	3.5E-04	0.20	1.0E-03	5.67	0.030	6.63	0.035
Carbon tetrachloride	56-23-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.052	2.7E-04	0.061	3.2E-04
Chlorine	7782-50-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.14	0.022	4.92	0.026
Butyl benzyl phthalate	85-68-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	7.4E-04	0.17	8.8E-04
Ethylene glycol monobutyl ether	111-76-2	Yes	0.34	1.8E-03	0.43	2.2E-03	0.77	4.0E-03	--	--	--	--	--	--	--	--	--	--	--	--	0.77	4.0E-03	0.77	4.0E-03
Epichlorohydrin	106-89-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6E-04	3.5E-06	6.6E-04	3.5E-06
Dipropylene glycol monomethyl ether	34590-94-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28.5	0.15	28.5	0.15
Vinyl acetate	108-05-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.7E-03	1.4E-05	2.7E-03	1.4E-05
Chlorobenzene	108-90-7	Yes	--	--	--	--	--	--	--	--	--	--	2.9E-06	1.5E-08	1.6E-05	8.6E-08	7.2E-05	3.8E-07	--	--	0.087	4.6E-04	0.10	5.4E-04
Chloroform	67-66-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	5.5E-04	0.13	6.6E-04
Crotonaldehyde	4170-30-3	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.58	3.1E-03	0.63	3.3E-03
Dibutyl phthalate	84-74-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	9.2E-04	0.21	1.1E-03
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.088	4.6E-04	0.10	5.5E-04
Diethylphthalate	84-66-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.23	1.2E-03	0.27	1.4E-03
Ethyl benzene	100-41-4	Yes	--	--	--	--	--	--	--	--	--	--	1.6E-04	8.2E-07	8.9E-04	4.7E-06	3.9E-03	2.0E-05	0.011	5.8E-05	0.080	4.2E-04	0.092	4.8E-04
Formaldehyde	50-00-0	Yes	--	--	--	--	--	--	--	--	--	--	0.025	1.3E-04	0.14	7.4E-04	0.62	3.2E-03	--	--	46.6	0.24	47.6	0.25
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.14	0.016	3.58	0.019
Isopropylbenzene (Cumene)	98-82-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.3E-04	3.3E-06	0.097	5.1E-04	0.11	6.0E-04
Hexane	110-54-3	Yes	--	--	--	--	--	--	--	--	--	--	3.9E-04	2.0E-06	2.2E-03	1.2E-05	9.6E-03	5.1E-05	--	--	1.52	8.0E-03	1.80	9.5E-03
Isopropyl alcohol	67-63-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	23.7	0.12	28.1	0.15
Methanol	67-56-1	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	272	1.43	273	1.43
1,3,5-Trimethylbenzene	108-67-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.0E-03	2.1E-05	4.0E-03	2.1E-05	4.0E-03	2.1E-05
Fluorides	239	Yes	--	--	--	--	--	--	2.5E-03	1.3E-05	--	--	--	--	--	--	--	--	--	--	2.5E-03	1.3E-05	2.5E-03	1.3E-05
1,2,3-Trimethylbenzene	526-73-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E-03	1.3E-05	2.5E-03	1.3E-05	2.5E-03	1.3E-05
Cyclohexane	110-82-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	1.7E-03	0.32	1.7E-03	0.32	1.7E-03
Bromomethane (Methyl bromide)	74-83-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.063	3.3E-04	0.075	3.9E-04
Chloromethane (Methyl chloride)	74-87-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	1.3E-03	0.29	1.5E-03
1,3-Butadiene	106-99-0	Yes	--	--	--	--	--	--	--	--	--	--	3.1E-03	1.6E-05	0.018	9.3E-05	0.078	4.1E-04	--	--	0.099	5.2E-04	0.099	5.2E-04
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	1.6E-03	0.36	1.9E-03
1,2,4-Trimethyl benzene	95-63-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.8E-03	4.6E-05	0.015	7.9E-05	0.015	7.9E-05
Dichloromethane (Methylene chloride)	75-09-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.17	0.011	2.56	0.013
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	2.1E-03	0.40	2.1E-03
Phenol	108-95-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.75	0.014	2.91	0.015
Propylene	115-07-1	Yes	--	--	--	--	--	--	--	--	--	--	6.8E-03	3.6E-05	0.038	2.0E-04	0.17	8.8E-04	--	--	0.21	1.1E-03	0.21	1.1E-03
Propionaldehyde	123-38-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.36	0.018	3.66	0.019
Styrene	100-42-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3E-05	1.7E-07	2.54	0.013	3.00	0.016
Toluene	108-88-3	Yes	--	--	--	--	--	--	--	--	--	--	1.5E-03	8.0E-06	8.6E-03	4.5E-05	0.038	2.0E-04	0.16	8.2E-04	0.77	4.0E-03	0.78	4.1E-03
Xylene (mixture)	1330-20-7	Yes	--	--	--	--	--	--	--	--	--	--	6.1E-04	3.2E-06	3.5E-03	1.8E-05	0.015	8.0E-05	--	--	0.084	4.4E-04	0.089	4.7E-04
Vinyl Chloride	75-01-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.096	5.1E-04	0.11	6.0E-04
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.10	5.5E-04	0.12	6.5E-04
m-Xylene	108-38-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	6.5E-04	0.12	6.5E-04
p-Xylene	106-42-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.031	1.6E-04	0.15	8.1E-04	0.15	8.1E-04
o-Xylene	95-47-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.012	6.2E-05	0.039	2.1E-04	0.039	2.1E-04
Hydrogen fluoride	7664-39-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41	2.1E-03	0.37	1.9E-03
Hydrochloric acid	7647-01-0	Yes	--	--	--	--	--	--	--	--	--	--	2.7E-03	1.4E-05	0.015	8.0E-05	0.067	3.5E-04	--	--	4.74	0.025	0.69	3.6E-03
DPM	200	Yes	--	--	--	--	--	--	--	--	--	--	0.48	2.5E-03	0.67	3.5E-03	12.0	0.063	--	--	13.1	0.069	13.1	0.069
PAHs (excluding Naphthalene)	401	Yes	--	--	--	--	--	--	--	--	--	--	5.2E-04	2.7E-06	3.0E-03	1.6E-05	0.013	6.8E-05	--	--	0.016	8.6E-05	0.016	8.6E-05
Acenaphthene	83-32-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.037	2.0E-04	0.053	2.8E-04
Acenaphthylene	208-96-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	1.1E-03	0.29	1.5E-03
Anthracene	120-12-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	6.1E-04	0.17	8.8E-04
Benz[a]anthracene	56-55-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.5E-03	1.9E-05	5.1E-03	2.7E-05
Benzo[a]pyrene	50-32-8	Yes	--	--	--	--	--	--	--	--	--	--	5.1E-07	2.7E-09	2.9E-06	1.5E-08	1.3E-05	6.7E-08	--	--	0.027	1.4E-04	0.038	2.0E-04
Benzo[b]fluoranthene	205-99-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.2E-03	3.2E-05	8.8E-03	4.6E-05
Benzo[e]pyrene	192-97-2	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.2E-03	4.8E-05	0.013	6.9E-05
Benzo[g,h,i]perylene	191-24-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6E-03	3.5E-05	9.4E-03	4.9E-05
Benzo[j]fluoranthene	205-82-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.8E-03	3.6E-05	9.7E-03	5.1E-05
Benzo[k]fluoranthene	207-08-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3E-03	1.2E-05	3.2E-03	1.7E-05
Chrysene	218-01-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.4E-03	1.8E-05	4.9E-03	2.6E-05
Fluoranthene	206-44-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.073	3.8E-04	0.10	5.5E-04
Fluorene	86-73-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	6.9E-04	0.19	9.8E-04
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.4E-03	2.3E-05	6.3E-03	3.3E-05
2-Methyl naphthalene	91-57-6	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.061	3.2E-04	0.087	4.6E-04
Naphthalene	91-20-3	Yes	--	--	--	--	--	--	--	--	--	--	2.8E-04	1.5E-06	1.6E-03	8.4E-06	7.0E-03	3.7E-05	2.6E-04	1.4E-06	1.58	8.3E-03	2.07	0.011
Perylene	198-55-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-03	7.3E-06	2.0E-03	1.0E-05
Phenanthrene	85-01-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.28	1.5E-03	0.40	2.1E-03
Pyrene	129-00-0	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	8.1E-04	0.22	1.2E-03
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.0E-09	2.6E-11	5.9E-09	3.1E-11
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0E-09	3.7E-11	8.3E-09	4.3E-11
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.6E-09	2.4E-11	5.4E-09	2.8E-11
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E-08	5.7E-11	1.3E-08	6.8E-11
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2E-08	6.1E-11	1.4E-08	7.2E-11
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.1E-08	2.7E-10	6.1E-08	3.2E-10
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E-07	6.8E-10	1.5E-07	8.0E-10
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2E-08	2.2E-10	5.0E-08	2.6E-10
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.1E-08	1.1E-10	2.5E-08	1.3E-10
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.2E-08	1.7E-10	3.8E-08	2.0E-10
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9E-08	9.8E-11	2.2E-08	1.2E-10
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7E-08	8.7E-11	2.0E-08	1.0E-10
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.5E-09	1.8E-11	4.2E-09	2.2E-11
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-08	7.3E-11	1.7E-08	8.7E-11
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.0E-08	1.6E-10	3.6E-08	1.9E-10
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2E-09	2.2E-11	5.0E-09	2.6E-11
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.6E-08	1.4E-10	3.1E-08	1.6E-10
Total PCBs	1336-36-3	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.1E-05	2.2E-07	4.9E-05	2.6E-07
3-Methylcholanthrene	56-49-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.5E-05	2.4E-07	5.4E-05	2.8E-07
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4E-05	1.3E-07	2.8E-05	1.5E-07
1-Methylphenanthrene	832-69-9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-03	7.1E-06	1.6E-03	8.5E-06
2,4-Dinitrotoluene	121-14-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.9E-03	2.6E-05	5.9E-03	3.1E-05
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.011	5.8E-05	0.013	6.9E-05
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4E-04	1.3E-06	2.9E-04	1.5E-06
Hydrogen cyanide	74-90-8	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	5.6E-04	0.13	6.7E-04
di-n-octylphthalateb	518	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8E-04	3.0E-06	6.8E-04	3.6E-06
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	8.0E-04	0.18	9.5E-04
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.46	7.7E-03	1.74	9.1E-03
4-nitrophenol	100-02-7	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0E-04	3.1E-06	7.1E-04	3.7E-06
2-Chlorophenol	95-57-8	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2E-04	6.5E-07	1.5E-04	7.7E-07
2,4-Dinitrophenol	51-28-5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.4E-04	5.0E-06	1.1E-03	5.9E-06
Trichlorofluoromethane (Freon 11)	75-69-4	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.073	3.8E-04	0.086	4.5E-04
2,4,6-Trichlorophenol	88-06-2	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E-03	5.5E-06	1.2E-03	6.5E-06
Pentachlorophenol	87-86-5	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E-03	5.9E-06	1.3E-03	7.0E-06
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	6.8E-04	0.15	8.0E-04
Total TAC Emissions Estimate			**0.34**	**1.8E-03**	**0.43**	**2.2E-03**	**0.77**	**4.0E-03**	**0.11**	**5.8E-04**	**1.4E-03**	**7.4E-06**	**0.58**	**3.0E-03**	**1.23**	**6.4E-03**	**14.4**	**0.076**	**0.75**	**3.9E-03**	**605**	**3.18**	**615**	**3.23**

Notes

g/s = grams per second; lb/day = pounds per day; RBC = risk-based concentration.

(a) Emission rate (g/s) = (daily emissions estimate [lb/day]) x (453.592 g/lb) / (24 hrs/day) / (3,600 s/hr)

(b) Total scrubber emissions (normal operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (fuel dryer emissions [lb/day])

(c) Total scrubber emissions (SU operations) (lb/day) = (hogged fuel boiler scrubber normal emissions [lb/day]) + (hogged fuel boiler scrubber SU emissions [lb/day]) + (fuel dryer emissions [lb/day])

(d) Model emission rate (kiln 1) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kiln 1 volume sources)

Model rate distribution for kiln 1 volume sources = 0.023 (6)

(e) Model emission rate (kiln 2-6) (lb/day) = (total kiln emission rate [lb/day]) x (model rate distribution for kilns 2-6 volume sources)

Model rate distribution for kilns 2-6 volume sources = 0.061 (6)

(f) Bay door emissions (lb/day) = (resin tank 4 [lb/day] + (whitewater chest [lb/day])

(g) Total paintline emissions (lb/day) = (basecoat emissions [lb/day]) + (topcoat emissions [lb/day])

References

(1) Total scrubber (normal operation) scenario includes emission estimates from the scrub

(2) Total scrubber (SU operation) scenario includes emission estimates from the scrubber

(3) SU scenario 1 includes SU emissions from single multi-clone controlled boiler and facility

(4) SU scenario 2 includes SU emissions from single scrubber controlled boiler and facility-w

(5) See Attachment A of the Construction ACDP application.

(6) See Table 4-6, Kiln Emissions Allocation.

(7) Stimson Lumber Company is not proposing a change in emissions for this TEU.

(8) Emission rates representative of individual model volume sources and not entire kiln.

Table 4-4
Acute Risk Equivalent Emission Rates
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	Acute Risk-Based Concentration (Yes/No)	Acute Risk Based Concentration [1] (ug/m^3)	Acute Risk Equivalent Emission Rate [a] (g/s per ug/m^3)																			
				Proposed Project Impacted TEUs													Existing TEU's with No Change						
				Hogged Fuel Boiler (ESP Stack)		Total Scrubber Stack		Kiln 1 [2]	Kilns 2-6 [2]	Lumber Surface Protection	Existing Stud Mill Cyclone (S-182)	Proposed Sawmill Cyclone	Resin Storage Tank 1	Resin Storage Tank 2	Resin Storage Tank 3	HBWW - Whitewater Chest	Press (Stack)	Press (Fugitive)	Refiner (Rotary Valve)	Refiner (Scrubber 5)	Forming Line (Stack)	Forming Line (Fugitives)	HBWW - Machine Chest
				ESP	Multi-Clone	Normal Operation	SU Operation																
Model ID	--	--	--	HBLR_ESP	HBLR_MC	HBLR_SCR	HBLR_SCR_SU	KILN1.1 -1.4	KILN2.1 - 6.3	LSP	S_CYC	SM_CHP	RESIN1	RESIN2	RESIN3	WHITE	PVUV_STK	HPVUV_FUG	RF12_RV	RF12_STK	FORM_STK	FORM_FUG	MACH
Antimony and compounds	7440-36-0	Yes	1.00	1.3E-05	1.6E-05	3.3E-05	9.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic and compounds	7440-38-2	Yes	0.20	4.0E-04	2.2E-04	9.2E-04	2.6E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium and compounds	7440-39-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	0.020	6.0E-05	3.5E-05	5.7E-05	1.6E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium and compounds	7440-43-9	Yes	0.030	4.5E-04	8.6E-04	1.8E-03	5.1E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium VI	18540-29-9	Yes	0.30	3.8E-05	1.2E-04	1.3E-05	3.7E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt and compounds	7440-48-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	100.0	1.6E-06	4.3E-06	3.0E-06	8.6E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead and compounds	7439-92-1	Yes	0.15	1.5E-03	1.1E-03	3.3E-03	9.5E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phosphorus and compounds	7723-14-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	0.30	0.013	0.032	0.014	0.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury and compounds	7439-97-6	Yes	0.60	6.5E-05	1.5E-05	3.3E-05	9.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum trioxide	1313-27-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	0.20	5.9E-04	3.4E-04	6.1E-04	1.7E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium and compounds	7782-49-2	Yes	2.00	3.4E-05	1.9E-06	1.4E-05	4.1E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver and compounds	7440-22-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	0.80	3.1E-05	6.3E-06	1.2E-05	3.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	470	1.0E-05	3.1E-06	9.9E-06	1.6E-05	3.0E-05	8.0E-05	--	--	--	--	--	--	4.9E-07	2.1E-05	1.3E-06	2.6E-06	5.7E-05	1.5E-05	1.5E-06	7.6E-06
Acetone	67-64-1	Yes	62,000	1.4E-07	4.4E-08	3.2E-07	4.1E-07	--	--	--	--	--	--	--	--	1.4E-09	1.9E-07	3.3E-09	6.5E-08	5.2E-08	5.0E-08	5.0E-09	1.9E-08
Acetophenone	98-86-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	6.90	6.3E-04	1.9E-04	9.7E-04	1.4E-03	3.3E-05	8.7E-05	--	--	--	--	--	--	2.4E-25	--	--	--	4.2E-04	8.6E-05	8.6E-06	6.2E-05
Ammonia	7664-41-7	Yes	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	Yes	29.0	5.7E-04	1.7E-04	2.3E-04	5.8E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	56-23-5	Yes	1,900	8.7E-08	2.7E-08	2.9E-08	8.2E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	170	7.8E-05	2.4E-05	2.6E-05	7.4E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	29,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dipropylene glycol monomethyl ether	34590-94-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	200	--	--	7.0E-08	7.0E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	1,300	--	--	--	--	--	--	--	--	--	--	--	--	2.7E-09	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	490	6.9E-07	2.1E-07	2.3E-07	6.5E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	230	1.2E-06	3.8E-07	4.0E-07	1.2E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	22,000	9.3E-09	2.9E-09	3.1E-09	8.8E-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	Yes	49.0	3.6E-04	1.1E-04	1.5E-04	3.7E-04	1.9E-05	5.0E-05	--	--	--	1.4E-04	1.5E-04	1.5E-04	4.7E-06	2.8E-03	1.1E-05	7.0E-06	5.8E-05	5.7E-05	5.7E-06	1.7E-05
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene (Cumene)	98-82-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	3,200	2.4E-05	7.3E-06	7.8E-06	2.2E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	28,000	4.4E-07	1.3E-07	1.6E-07	4.3E-07	1.0E-06	2.7E-06	--	6.9E-08	4.2E-08	3.3E-08	3.6E-08	3.6E-08	--	4.0E-06	3.2E-07	4.3E-08	5.8E-08	5.7E-07	5.7E-08	--
1,3,5-Trimethylbenzene	108-67-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	240	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	3,900	4.9E-08	1.5E-08	2.2E-08	5.2E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	1,000	7.3E-07	2.2E-07	3.3E-07	7.8E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	660	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	11,000	8.8E-08	2.7E-08	2.9E-08	8.3E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	2,100	3.2E-06	9.8E-07	1.2E-06	3.2E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	5,000	2.3E-08	7.2E-09	2.1E-07	2.3E-07	--	--	--	--	--	--	--	--	--	--	--	4.8E-08	2.7E-08	8.7E-08	8.7E-09	--
Phenol	108-95-2	Yes	5,800	4.6E-07	1.4E-07	1.8E-06	2.1E-06	--	--	--	--	--	1.8E-10	2.0E-10	2.0E-10	6.2E-10	--	6.4E-08	--	--	--	--	7.9E-10
Propylene	115-07-1	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	Yes	21,000	3.8E-07	1.2E-07	1.3E-07	3.6E-07	--	--	--	--	--	--	--	--	--	--	--	8.3E-09	8.3E-09	--	--	--
Toluene	108-88-3	Yes	7,500	2.6E-08	7.8E-09	2.9E-07	3.1E-07	--	--	--	--	--	--	--	--	--	--	5.4E-09	--	--	5.8E-08	5.8E-09	--
Xylene (mixture)	1330-20-7	Yes	8,700	1.0E-08	3.1E-09	3.3E-09	9.5E-09	--	--	--	--	--	--	--	--	--	--	2.3E-08	--	--	--	--	--
Vinyl Chloride	75-01-4	Yes	1,300	2.4E-07	7.3E-08	7.8E-08	2.2E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	2.10	1.6E-04	4.9E-05	5.2E-05	1.5E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	8,700	--	--	7.5E-08	7.5E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	8,700	--	--	7.5E-08	7.5E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	Yes	8,700	--	--	1.3E-09	1.3E-09	--	--	--	--	--	--	--	--	--	--	1.5E-08	--	--	--	--	--
Hydrogen fluoride	7664-39-3	Yes	16.0	9.5E-05	2.9E-05	8.8E-06	2.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	2,100	6.2E-07	1.1E-05	3.1E-07	8.9E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPM	200	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	2.0E-03	0.047	5.7E-03	0.018	0.053	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	200	2.1E-05	2.6E-06	1.8E-05	3.3E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perylene	198-55-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decachlorobiphenyl	2051-24-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	340	1.0E-06	3.1E-07	3.3E-07	9.5E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	12,000	3.9E-07	1.2E-07	1.3E-07	3.7E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	41.0	1.0E-05	3.1E-06	3.3E-06	9.5E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEU Risk Equivalent Emission Rate [b] (g/s per ug/m^3)				**0.0652**	**0.0408**	**0.0404**	**0.1144**	**8.2E-05**	**2.2E-04**	**0**	**6.9E-08**	**4.2E-08**	**1.4E-04**	**1.5E-04**	**1.5E-04**	**5.2E-06**	**2.9E-03**	**1.2E-05**	**9.8E-06**	**5.4E-04**	**1.6E-04**	**1.6E-05**	**8.6E-05**

Notes

g/s = grams per second; TAC = toxic air contaminant;

ug/m^3 = micrograms per cubic meter; TEU = toxic emission unit.

[a] TAC acute risk equivalent emission rate (g/s per ug/m^3) = (daily emissions estimate [g/s])
/ (acute risk based concentration [ug/m^3])

Daily emissions estimate (g/s) = (3)

[b] TEU Risk Equivalent Emission Rate (g/s per ug/m^3) = ∑ (TAC acute risk equivalent emission rates [g/s per ug/m^3])

References

[1] Oregon Administrative Rule 340-245-8010 Table 2.

[2] Acute risk equivalent emission rates representative of individual model volume sources and not entire kiln.

[3] See Table 4-3, Daily TAC Emission Rates.

[4] TAC does not have an acute based concentration listed in OAR 340-245-8010 Table 2.

Table 4-4
Acute Risk Equivalent Emission Rates (Cont.)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	Acute Risk-Based Concentration (Yes/No)	Acute Risk Based Concentration [1] (ug/m^3)	Acute Risk Equivalent Emission Rate [a] (g/s per ug/m^3)																
				Existing TEU's with No Change																
				HBWW - Head box	WW - Hydrosieves	BLR-SCR - Hydrosieves	WW - Surge Pond	WW - Aeration Basin	WW - Secondary Clarifier	WW - Sludge Pit Conveyor	WW - Sludge Pond	WW - Reuse Pond	WW - Reuse Pond	Paintline Total	Welding	Babbitt Pot	Fire Pump	Backup Generator	Proposed Emergency Generator	Gas Storage Tank
Model ID	--	--	--	HEADBOX	HYDRO	SCR_HYDRO	SURGE	ABASE	CLAR	PIT	S_POND	R_POND	E_POND	PAINT	WELD	BPOT	FIRE	BGEN	EGEN01	GAS
Antimony and compounds	7440-36-0	Yes	1.00	--	--	--	--	--	--	--	--	--	--	--	--	3.5E-06	2.4E-08	1.4E-07	6.0E-07	--
Arsenic and compounds	7440-38-2	Yes	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	6.1E-07	3.4E-06	1.5E-05	--
Barium and compounds	7440-39-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium and compounds	7440-41-7	Yes	0.020	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8E-08	1.0E-07	4.5E-07	--
Cadmium and compounds	7440-43-9	Yes	0.030	--	--	--	--	--	--	--	--	--	--	--	--	--	3.8E-06	2.1E-05	9.4E-05	--
Chromium VI	18540-29-9	Yes	0.30	--	--	--	--	--	--	--	--	--	--	--	2.4E-05	--	2.5E-08	1.4E-07	6.3E-07	--
Cobalt and compounds	7440-48-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum and compounds	7429-90-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc oxide	1314-13-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper and compounds	7440-50-8	Yes	100.0	--	--	--	--	--	--	--	--	--	--	--	1.3E-08	3.5E-08	3.1E-09	1.8E-08	7.7E-08	--
Lead and compounds	7439-92-1	Yes	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2E-06	2.4E-05	1.0E-04	--
Phosphorus and compounds	7723-14-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese and compounds	7439-96-5	Yes	0.30	--	--	--	--	--	--	--	--	--	--	--	5.2E-05	--	7.8E-07	4.4E-06	1.9E-05	--
Mercury and compounds	7439-97-6	Yes	0.60	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E-07	1.4E-06	6.3E-06	--
Molybdenum trioxide	1313-27-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel and compounds	365	Yes	0.20	--	--	--	--	--	--	--	--	--	--	--	3.0E-04	1.8E-06	1.5E-06	8.4E-06	3.7E-05	--
Selenium and compounds	7782-49-2	Yes	2.00	--	--	--	--	--	--	--	--	--	--	--	--	--	8.3E-08	4.7E-07	2.1E-06	--
Silver and compounds	7440-22-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium and compounds	7440-28-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	Yes	0.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc and compounds	7440-66-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	Yes	470	2.2E-06	3.4E-06	3.3E-08	6.2E-06	2.6E-07	4.1E-09	1.0E-11	7.2E-10	3.8E-10	5.2E-10	--	--	--	1.3E-07	7.1E-07	3.1E-06	--
Acetone	67-64-1	Yes	62,000	4.3E-09	3.1E-09	6.3E-10	1.8E-09	9.0E-12	1.8E-13	5.4E-29	6.9E-15	1.3E-15	1.5E-15	--	--	--	--	--	--	--
Acetophenone	98-86-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	Yes	6.90	1.5E-24	2.3E-24	1.5E-05	1.9E-24	5.3E-26	7.5E-28	1.2E-25	4.1E-24	1.6E-24	2.0E-24	--	--	--	3.7E-07	2.1E-06	9.2E-06	--
Ammonia	7664-41-7	Yes	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8E-07	1.0E-06	4.5E-06	--
Benzene	71-43-2	Yes	29.0	--	--	--	--	--	--	--	--	--	--	--	--	--	4.9E-07	2.8E-06	1.2E-05	3.6E-05
Carbon tetrachloride	56-23-5	Yes	1,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorine	7782-50-5	Yes	170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol monobutyl ether	111-76-2	Yes	29,000	--	--	--	--	--	--	--	--	--	--	1.4E-07	--	--	--	--	--	--
Dipropylene glycol monomethyl ether	34590-94-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	Yes	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Epichlorohydrin	106-89-8	Yes	1,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	Yes	490	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Crotonaldehyde	4170-30-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl phthalate	84-74-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	100-41-4	Yes	22,000	--	--	--	--	--	--	--	--	--	--	--	--	--	3.7E-11	2.1E-10	9.3E-10	2.6E-09
Formaldehyde	50-00-0	Yes	49.0	3.9E-06	1.8E-06	1.6E-08	2.3E-05	3.2E-07	5.2E-09	6.3E-12	1.7E-09	1.4E-09	1.8E-09	--	--	--	2.7E-06	1.5E-05	6.6E-05	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene (Cumene)	98-82-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	110-54-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl alcohol	67-63-0	Yes	3,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	Yes	28,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	108-67-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorides	239	Yes	240	--	--	--	--	--	--	--	--	--	--	--	5.4E-08	--	--	--	--	--
1,2,3-Trimethylbenzene	526-73-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	74-83-9	Yes	3,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	74-87-3	Yes	1,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	Yes	660	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5E-08	1.4E-07	6.2E-07	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	11,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethyl benzene	95-63-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	2,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	5,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	Yes	5,800	3.7E-10	3.9E-10	3.9E-11	1.5E-11	3.4E-15	6.9E-17	4.8E-20	3.2E-19	7.9E-21	9.3E-21	--	--	--	--	--	--	--
Propylene	115-07-1	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde	123-38-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	Yes	21,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.3E-12
Toluene	108-88-3	Yes	7,500	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E-09	6.0E-09	2.6E-08	1.1E-07
Xylene (mixture)	1330-20-7	Yes	8,700	--	--	--	--	--	--	--	--	--	--	--	--	--	3.7E-10	2.1E-09	9.1E-09	--
Vinyl Chloride	75-01-4	Yes	1,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	2.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	Yes	8,700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	106-42-3	Yes	8,700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8E-08
o-Xylene	95-47-6	Yes	8,700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.1E-09
Hydrogen fluoride	7664-39-3	Yes	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrochloric acid	7647-01-0	Yes	2,100	--	--	--	--	--	--	--	--	--	--	--	--	--	6.7E-09	3.8E-08	1.7E-07	--
DPM	200	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PAHs (excluding Naphthalene)	401	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene	56-55-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	Yes	2.0E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E-06	7.5E-06	3.4E-05	--
Benzo[b]fluoranthene	205-99-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[e]pyrene	192-97-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[j]fluoranthene	205-82-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl naphthalene	91-57-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	Yes	200	--	--	--	--	--	--	--	--	--	--	--	--	--	7.4E-09	4.2E-08	1.8E-07	6.8E-09
Perylene	198-55-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran (OCDF)	39001-02-0	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	1336-36-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decachlorobiphenyl	2051-24-3	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylcholanthrene	56-49-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylphenanthrene	832-69-9	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-o-cresol (and salts)	534-52-1	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen cyanide	74-90-8	Yes	340	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
di-n-octylphthalateb	518	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	12,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-nitrophenol	100-02-7	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	No	[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	41.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEU Risk Equivalent Emission Rate [b] (g/s per ug/m^3)				**6.1E-06**	**5.2E-06**	**1.5E-05**	**2.9E-05**	**5.7E-07**	**9.2E-09**	**1.6E-11**	**2.4E-09**	**1.7E-09**	**2.3E-09**	**1.4E-07**	**3.7E-04**	**5.4E-06**	**1.6E-05**	**9.3E-05**	**4.1E-04**	**3.6E-05**

Notes

g/s = grams per second; TAC = toxic air contaminant;

ug/m^3 = micrograms per cubic meter; TEU = toxic emission unit.

[a] TAC acute risk equivalent emission rate (g/s per ug/m^3) = (daily emissions estimate [g/s]) / (acute risk based concentration [ug/m^3])

Daily emissions estimate (g/s) = [3]

[b] TEU Risk Equivalent Emission Rate (g/s per ug/m^3) = ∑ (TAC acute risk equivalent emission rates [g/s per ug/m^3])

References

[1] Oregon Administrative Rule 340-245-8010 Table 2.

[2] Acute risk equivalent emission rates representative of individual model volume sources and not entire kiln.

[3] See Table 4-3, Daily TAC Emission Rates.

[4] TAC does not have an acute based concentration listed in OAR 340-245-8010 Table 2.

Table 4-5
Kiln Thermal Buoyancy Effects Calculations
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Parameter	EPA Memo Acronym	(Units)	Source Representation					
			KILN1	KILN2	KILN3	KILN4	KILN5	KILN6
PHYSICAL PARAMETERS								
Kiln Width [1]	--	(ft)	16.5	33.0	33.0	33.0	33.0	33.0
Kiln Length [1]	--	(ft)	73.0	73.0	73.0	73.0	73.0	73.0
Kiln Height [1]	--	(ft)	28.0	28.0	28.0	28.0	28.0	28.0
Kiln Flowrate [2]	--	(acfm)	6,250	12,500	12,500	12,500	12,500	12,500
Kiln Temperature [1]	--	(°F)	190	190	190	190	190	190
Ambient Temperature [3]	--	(°F)	52.9	52.9	52.9	52.9	52.9	52.9
Acceleration of Gravity Constant	g	(m/s^2)	9.81	9.81	9.81	9.81	9.81	9.81
EFFECTIVE RELEASE HEIGHT DERIVATION								
Kiln Width [a]	*w*	(m)	5.03	10.06	10.06	10.06	10.06	10.06
Kiln Length [a]	*l*	(m)	22.3	22.3	22.3	22.3	22.3	22.3
Kiln Height [a]	--	(m)	8.53	8.53	8.53	8.53	8.53	8.53
Kiln Flowrate [b]	*Q*	(m^3/s)	2.95	5.90	5.90	5.90	5.90	5.90
Kiln Temperature [c]	T_p	(K)	361	361	361	361	361	361
Ambient Temperature [c]	T_a	(K)	285	285	285	285	285	285
Effective Radius [d]	r_p	(m)	5.97	8.44	8.44	8.44	8.44	8.44
Kiln Buoyancy Flux [e]	F_b	(m^4/s^3)	1.94	3.89	3.89	3.89	3.89	3.89
Initial Vertical Velocity [f]	w_p	(m/s)	2.6E-02	2.6E-02	2.6E-02	2.6E-02	2.6E-02	2.6E-02
Froude Number [g]	*F*	--	5.3E-03	4.5E-03	4.5E-03	4.5E-03	4.5E-03	4.5E-03
Velocity Ratio [h]	*K*	--	99	99	99	99	99	99
Brunt Visalia Frequency [i]	*N*	--	0.053	0.053	0.053	0.053	0.053	0.053
Stable Plume Rise [j]	Δh	(m)	17.11	21.55	21.55	21.55	21.55	21.55
Effective Release Height [k]	**--**	**(m)**	**21.37**	**25.82**	**25.8**	**25.8**	**25.8**	**25.8**
DISPERSION MODEL INPUT								
Vertical Dimension [5]	**--**	**(m)**	**21.37**	**25.82**	**25.82**	**25.82**	**25.82**	**25.82**
Release Height [5]	**--**	**(m)**	**10.69**	**12.91**	**12.91**	**12.91**	**12.91**	**12.91**
Initial Vertical Dimension [7]	**--**	**(m)**	**9.94**	**12.01**	**12.01**	**12.01**	**12.01**	**12.01**

Notes

ft = feet; acfm = actual cubic feet per minute; °F = degrees Fahrenheit; m/s^2 = meter per second squared; m = meter; K = kelvin; m^4/s^3 = quartic meter per cubic second; m/s = meter per second.

[a] Parameter (m) = (parameter [ft]) / (3.2808 ft/m)

[b] Kiln flowrate (m^3/s) = (kiln flowrate [acfm]) / (60 s/min) / (35.3147 ft^3/m^3)

[c] Temperature (K) = ([temperature {°F} - 32) x (5/9) + (273.15)

[d] Effective radius (m) = ([kiln width {m}] x [kiln length {m}] / [π])$^{1/2}$

[e] Kiln buoyancy flux (m^4/s^3) = (acceleration of gravity [m/s^2]) x (kiln flowrate [m^3/s]) x ([kiln temperature {K}] - [ambient temperature {K}]) / (π) / (kiln temperature [K]) (4)

[f] Initial vertical velocity (m/s) = (kiln buoyancy flux [m^4/s^3]) x (kiln temperature [K]) / (acceleration of gravity [m/s^2]) / ([kiln temperature {K}] - [ambient temperature {K}]) / (effective radius [m])^2 (5)

[g] Froude number = (initial vertical velocity [m/s]) / ([{kiln temperature |K|} - {ambient temperature |K|}] / [kiln temperature {K}] x [2] x [effective radius {m}] x [acceleration of gravity {m/s^2}])$^{-1/2}$ (5)

[h] Velocity ratio = (wind speed (m/s) / (initial vertical velocity [m/s])

Wind speed (m/s) = 2.61 (3)

[i] Brunt vasaila frequency = ([acceleration of gravity {m/s^2}] / [ambient temperature {K}] x [temperature gradient {K/m}])$^{1/2}$ (5)

Temperature gradient (K/m) = 0.08 (5)

[j] Stable plume rise (m) = (2.1) x ([effective radius {m}] x [wind speed {m/s}]^2 / [velocity ratio]^3 / [Froude number]^2 / [Brunt vasaila frequency]^2)$^{1/3}$ (5)

Wind speed (m/s) = 2.61 (3)

[k] Effective release heigth (m) = (stable plume rise [m]) + (kiln height [m] / 2) (6)

References

[1] Information provided by Stimson Lumber Company

[2] Per Appendix D2 of Appendix 1 in the EPA "Residual Risk Assessment for the Plywood and Composite Wood Products Source Category in Support of the 2019 Risk and Technology Review Proposed Rule" dated May, 2019, velocity measurement and total gas flow data indicate 12,500 acfm is representative of the total gas flow from batch kilns. Kiln 1 is one-track and is estimated to have half the airflow of the two-track batch kilns (kiln 2-6).

[3] Representative of 5-year average daily temperature and average wind speed from January 1 2020 through December 31, 2024. Value calculated using Hillsboro met station data.

[4] See Appendix 12, sub Appendix I, "Plume-Rise Methodology for Slag Pits Based Upon Work by John Irwin (EPA; 2003)," to the Residual Risk Assessment for the Plywood and Composite Wood Products Source Category in Support of the 2019 Risk and Technology Review Proposed Rule dated May, 2019. Formula for initial vertical velocity rearranged to solve for buoyancy flux.

[5] See Appendix 12, sub Appendix I, "Plume-Rise Methodology for Slag Pits Based Upon Work by John Irwin (EPA; 2003)," to the Residual Risk Assessment for the Plywood and Composite Wood Products Source Category in Support of the 2019 Risk and Technology Review Proposed Rule dated May, 2019.

[6] See section III of Appendix 12, "Development of Plume-Rise Adjustment Factors for Batch and Continuous Lumber Kilns," to the Residual Risk Assessment for the Plywood and Composite Wood Products Source Category in Support of the 2019 Risk and Technology Review Proposed Rule dated May, 2019.

[7] See "User's Guide for the AMS/EPA Regulatory Model (AERMOD)" dated November 2024. See Table 3-2. The initial vertical dimension for elevated sources on or adjacent to a building is equal to the release height divided by 2.15.

Table 4-6
Kiln Emissions Allocation
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Model ID	Model Source Description	Kiln Track (Single/Double)	Emissions Distribution per Kiln	Emissions Distribution per modeled source
Kiln 1		**Single**	**0.091** [(a)]	--
KILN1_1	Kiln 1 (1 of 4)	--	--	0.023 [(b)]
KILN1_2	Kiln 1 (3 of 4)	--	--	0.023 [(b)]
KILN1_3	Kiln 1 (2 of 4)	--	--	0.023 [(b)]
KILN1_4	Kiln 1 (4 of 4)	--	--	0.023 [(b)]
Kiln 2		**Double**	**0.182** [(c)]	--
KILN2_1	Kiln 2 (1 of 3)	--	--	0.061 [(d)]
KILN2_2	Kiln 2 (2 of 3)	--	--	0.061 [(d)]
KILN2_3	Kiln 2 (3 of 3)	--	--	0.061 [(d)]
Kiln 3		**Double**	**0.182** [(c)]	--
KILN3_1	Kiln 3 (1 of 3)	--	--	0.061 [(d)]
KILN3_2	Kiln 3 (2 of 3)	--	--	0.061 [(d)]
KILN3_3	Kiln 3 (3 of 3)	--	--	0.061 [(d)]
Kiln 4		**Double**	**0.182** [(c)]	--
KILN4_1	Kiln 4 (1 of 3)	--	--	0.061 [(d)]
KILN4_2	Kiln 4 (2 of 3)	--	--	0.061 [(d)]
KILN4_3	Kiln 4 (3 of 3)	--	--	0.061 [(d)]
Kiln 5		**Double**	**0.182** [(c)]	--
KILN5_1	Kiln 5 (1 of 3)	--	--	0.061 [(d)]
KILN5_2	Kiln 5 (2 of 3)	--	--	0.061 [(d)]
KILN5_3	Kiln 5 (3 of 3)	--	--	0.061 [(d)]
Kiln 6		**Double**	**0.182** [(c)]	--
KILN6_1	Kiln 6 (1 of 3)	--	--	0.061 [(d)]
KILN6_2	Kiln 6 (2 of 3)	--	--	0.061 [(d)]
KILN6_3	Kiln 6 (3 of 3)	--	--	0.061 [(d)]
Total Fraction			**1.00**	**1.00**

Notes

[(a)] Emissions Distribution per single track kiln = (tracks per kilns) / (total number of tracks)

Total number of tracks =	11	(1)
Tracks per kiln (single) =	1	(2)

[(b)] Emissions Distribution per model source (kiln 1) = (emissions distribution per single track kiln) / (number of volume sources)

Number of volume sources =	4

[(c)] Emissions Distribution per double track kiln = (tracks per kilns) / (total number of tracks)

Total number of tracks =	11	(1)
Tracks per kiln (double) =	2	(2)

[(d)] Emissions distribution per model source (kilns 2-6) = (emissions distribution per single double track kiln) / (number of volume sources)

Number of volume sources =	3

References

[(1)] Representative of the total number of tracks for all six kilns at the facility.

[(2)] Information provided by Stimson Lumber Company.

[(3)] Number of volume sources set by the dimensions of each kiln.

Table 5-4
Assessment of Missing Meteorological Data
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Quarter [1]	Meteorological Data Assessment per Year														
	2020			2021			2022			2023			2024		
	Total Hours [1]	Missing Hours [2]	Available [a] (%)	Total Hours [1]	Missing Hours [2]	Available [a] (%)	Total Hours [1]	Missing Hours [2]	Available [a] (%)	Total Hours [1]	Missing Hours [2]	Available [a] (%)	Total Hours [1]	Missing Hours [2]	Available [a] (%)
Q1	2,184	8	99.6%	2,160	94	95.6%	2,160	5	99.8%	2,160	36	98.3%	2,184	37	98.3%
Q2	2,184	6	99.7%	2,184	54	97.5%	2,184	14	99.4%	2,184	58	97.3%	2,184	169	92.3%
Q3	2,208	13	99.4%	2,208	27	98.8%	2,208	24	98.9%	2,208	45	98.0%	2,208	29	98.7%
Q4	2,208	47	97.9%	2,208	23	99.0%	2,208	18	99.2%	2,208	43	98.1%	2,208	29	98.7%

Notes

[a] Available hours (%) = (1 - [{missing hours} / {total hours}]) x (100%)

References

[1] Meteorological data obtained from the National Oceanic and Atmospheric Administration National Climatic Data Center Integrated Surface Data for the Portland-Hillsboro Airport located in Hillsboro, Oregon (WBAN: 94261).

[2] The number of missing hours was determined by generating a SFC QA excel file generated by AERMET version 24142.

Table 5-6
Soil Moisture Condition Assessment
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Calendar Year	Total Precipitation [1] (in)	Climatic Significance [2] (in)	Calendar Year Soil Moisture [3] (in)
2020	29.2	Lower 30th Percentile	DRY
2021	36.1	Middle 40th Percentile	AVG
2022	35.8	Middle 40th Percentile	AVG
2023	30.7	Middle 40th Percentile	AVG
2024	41.0	Upper 70th Percentile	WET

26-Year Climate Precipitation Data [4]		
Average Annual Precipitation	[5]	34.4
Lower 30th Percentile Annual Precipitation	[6]	29.6
Upper 70th Percentile Annual Precipitation	[7]	39.3

References

[1] Climatological data obtained from the National Center for Environmental Information for the Portland-Hillsboro Airport (Hillsboro met station) in Hillsboro, OR (Station ID: 94261). MFA determined the Hillsboro met station is the most representative station for dispersion modeling as is the same station used for insitu surface meteorological data. Although the Hillsboro met station only has 26-consecutive years of precipitation data, MFA believes this period is sufficient for assessing climatological soil moisture conditions for dispersion modeling purposes.

[2] Climatic significance represents annual precipitation compared to 30-year climatological period.

[3] Surface moisture conditions correspond to "Dry", "Average" or "Wet" soil content determined by comparing annual precipitation to 30-year climatological period. This method is consistent with the methodology set forth in the current version of the USEPA AERSURFACE User's Guide dated November, 2024.

[4] Represents 26-year period between January 1999 and December 2024.

[5] Represents average annual precipitation during 26-year climatological period.

[6] Represents lower limit of middle 40th percentile annual precipitation during 26-year climatological period.

[7] Represents upper limit of middle 40th percentile annual precipitation during 26-year climatological period.

Table 5-7
Summary of Downwash Structure Heights
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Downwash Structure Model ID	Base Elevation [1]		Number of Building Tiers	Tier Height [2]		Diameter [2]	
	(ft)	(m)		(ft)	(m)	(ft)	(m)
HBOARD	216.1	65.9	1	49.0	14.9	--	--
HBOARD	216.1	65.9	2	49.0	14.9	--	--
OFFICES	216.4	66.0	1	37.8	11.5	--	--
HB1	215.8	65.8	1	31.0	9.5	--	--
HB2	215.0	65.5	1	26.5	8.1	--	--
HB3	215.6	65.7	1	29.0	8.8	--	--
HB4	216.1	65.9	1	18.2	5.6	--	--
TANK1	214.6	65.4	1	60.0	18.3	32.3	9.8
TANK2	214.4	65.4	1	60.0	18.3	32.3	9.8
TANK3	215.1	65.6	1	32.3	9.8	32.6	9.9
BLD_1	214.8	65.5	1	27.9	8.5	--	--
BLD_2	212.1	64.6	1	35.8	10.9	--	--
BLD_3	213.7	65.1	1	16.1	4.9	--	--
BLD_4	211.3	64.4	1	13.7	4.2	--	--
BLD_10	224.6	68.5	1	28.7	8.8	--	--
BLD_11	211.9	64.6	1	53.1	16.2	--	--
BLD_12	213.8	65.2	1	18.0	5.5	--	--
BLD_13	213.7	65.1	1	25.0	7.6	--	--
BLD_17	213.0	64.9	1	29.5	9.0	--	--
BLD_18	215.3	65.6	1	10.8	3.3	--	--
BLD_23	211.6	64.5	1	47.0	14.3	--	--
BLD_24	212.9	64.9	1	31.9	9.7	--	--
BLD_25	213.4	65.0	1	24.7	7.5	--	--
BLD_26	212.5	64.8	1	27.1	8.3	--	--
BLD_22	214.9	65.5	1	49.0	14.9	--	--
BLD_28	213.5	65.1	1	30.3	9.2	--	--
BLD_21	221.1	67.4	1	29.0	8.8	--	--
BLD_29	221.3	67.5	1	28.0	8.5	--	--
BLD_30	219.5	66.9	1	20.0	6.1	--	--
BLD_30	219.5	66.9	2	20.0	6.1	--	--
BLD_30	219.5	66.9	3	20.0	6.1	--	--
BLD_30	219.5	66.9	4	20.0	6.1	--	--
BLD_31	218.5	66.6	1	20.0	6.1	--	--
BLD_31	218.5	66.6	2	20.0	6.1	--	--
BLD_31	218.5	66.6	3	20.0	6.1	--	--
BLD_31	218.5	66.6	4	20.0	6.1	--	--
BLD_32	219.7	67.0	1	24.8	7.6	--	--
BLD_33	221.6	67.5	1	24.5	7.5	--	--
BLD_34	215.6	65.7	1	20.0	6.1	--	--
BLD_34	215.6	65.7	2	20.0	6.1	--	--
BLD_34	215.6	65.7	3	20.0	6.1	--	--
BLD_34	215.6	65.7	4	20.0	6.1	--	--
BLD_35	217.5	66.3	1	20.0	6.1	--	--
BLD_35	217.5	66.3	2	20.0	6.1	--	--
BLD_35	217.5	66.3	3	20.0	6.1	--	--
BLD_35	217.5	66.3	4	20.0	6.1	--	--
BLD_35	217.5	66.3	5	20.0	6.1	--	--
SAW1	217.1	66.2	1	55.0	16.8	--	--
SAW1.B	217.1	66.2	1	29.0	8.8	--	--
SAW2.A	217.1	66.2	1	30.0	9.1	--	--
SAW2.B	217.1	66.2	1	27.5	8.4	--	--

References

[1] Base elevation derived from 1/3-arc second US Geological Survey National Elevation Dataset.

[2] Information provided by Stimson Lumber Company.

Table 6-1
Secondary Impacts from PM2.5 Precursors
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Precursor	Proposed Annual Emissions Estimate (tons/yr)	Hypothetical Facility MERP for 24-Hour $PM_{2.5}$ (tons/yr)
NO_X	117.7 (1)	3,003 (2)
SO_2	4.62 (1)	1,203 (2)

Pollutant and Averaging Period	Class II SIL (ug/m^3)	Secondary Impact		Additive Secondary Impact Percentage Less than 100%?
		Concentration (ug/m^3)	Percent of SIL	
$PM_{2.5}$ 24-Hour	1.2 (3)	5.2E-02 (a)	4.30 (b)	Yes (4)

Notes

MERP = modeled emission rates for precursors; ppb = parts per billion; SIL = Significant Impact Level; tons/yr = tons per year; ug/m^3 = microgram per cubic meter.

(a) $PM_{2.5}$ daily secondary impact concentration (ug/m^3) = ([proposed annual NO_X emissions estimate {tons/yr}] / [hypothetical facility NO_X MERP for 24-hour $PM_{2.5}$ {tons/yr}] + [proposed annual SO_2 emissions estimate {tons/yr}] / [hypothetical facility SO_2 MERP for 24-hour $PM_{2.5}$ {tons/yr}]) x ($PM_{2.5}$ 24-hour class II SIL [ug/m^3])

(b) Secondary impact percent of SIL (%) = (secondary impact concentration [ug/m^3]) / (class II SIL [ug/m^3]) x (100%)

References

(1) See Table 3, "Permitting Applicability Summary", in Appendix A of the Construction ACDP application.

(2) EPA, "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier I Demonstration Tool for O_3 and $PM_{2.5}$ under the PSD Permitting Program, "April 30, 2019. Table 4-1 "Lowest, median, and highest illustrative MERP values (tons/yr) by precursor, pollutant and climate zone." Conservatively assumes the lowest MERP values for the Northwest climate zone as the most-representative of the Portland area.

(3) Oregon Administrative Rule 340-200-0020(162)(b).

(4) EPA, "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier I Demonstration Tool for O_3 and $PM_{2.5}$ under the PSD Permitting Program, "April 30, 2019. Per Section 4.1, a value less than 100% indicates that the SIL would not be exceeded when considering the combined impacts of the applicable precursors.

Table 6-2
Competing Source Emissions Inventory
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Model ID	Model Source Description	$PM_{2.5}$ Emission Rate		UTM Coordinates [1]		Distance from Facility [1]	Base Elevation [2]	Release Height [1]	Exit Diameter [1]	Exit Velocity [1]	Exit Flowrate [1]	Exit Temperature [1]
		(tons/day) [1]	(g/s) [a]	Easting	Northing	(km)	(m)	(ft)	(ft)	(ft/s)	(cfm)	(°F)
FLS_BGH	Fox Lumber Sales, Inc. Baghouse	2.19E-06	2.30E-05	485,563	5,034,726	0.1	65.6	40.0	5.0	40.00	47,100	72.0
DMH_WWL	DMH, Inc. Woodwaste Loadout	1.63E-03	1.71E-02	493,682	5,041,244	10.6	[3]					

Notes

g/s = grams per second; m = meter; ft = feet; ft/s = feet per second; cfm = cubic feet per minute; UTM = universal transverse mercator; °F = degrees Farhenheit; km = kilometer; ROI = Range of Influence.

[a] Emission rate (g/s) = (emission rate [tons/day]) x (2,000 lb/ton) x (453.59 g/lb) / (24 hr/day) / (3,600 s/hr)

References

[1] Competing source inventory provided by the DEQ on February 27, 2025.

[2] Value derived from AERMAP terrain preprocessor.

[3] The DMH, Inc. Woodwaste Loadout source was reassessed using an updated ROI value of 5.6 km. The updated ROI was based on a decrease in facility-wide PTE $PM_{2.5}$ emissions to 28 tons per year. This competing source was determined to be ouside of the ROI and therefore MFA is proposing to not include it with the short-term $PM_{2.5}$ cumulative impact analysis.

Table 6-3
Assessments, Background Concentrations, and Preliminary AAQS Review
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Pollutant	Averaging Period	Modeling Components (ug/m^3)						
		Modeled Background Concentration [1]					AAQS [2]	Preliminary AAQS Review Value [a]
		NE Location	SE Location	SW Location	NW Location	Average		
$PM_{2.5}$	24-hour	18.7	17.4	14.0	13.7	16.0	35	19.0

Notes

AAQS = Ambient Air Quality Standard; SIL = Significant Impact Level; ug/m^3 = micrograms per cubic meter.

[a] Preliminary AAQS review value (ug/m^3) = (AAQS [ug/m^3]) - (proposed background concentration [ug/m^3])

References

[1] NW-AIRQUEST Regional Background Design Values 2014-2017. https://idahodeq.maps.arcgis.com. Accessed February 27, 2025.

[2] Oregon Administrative Rule 340-202-0060(2).

Table 7-1
Applicable Risk-Based Concentrations
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

TAC	CAS or DEQ ID	RBC? (Yes/No)	Noncancer TBACT RAL [1]	Risk-Based Concentration [1] (ug/m^3)						
				Residential Chronic		Non-Residential Chronic				Acute
				Cancer	Noncancer	Child Cancer	Child Noncancer	Worker Cancer	Worker Noncancer	Noncancer
Antimony and compounds	7440-36-0	Yes	HI3	--	0.30	--	1.30	--	1.30	1.00
Arsenic and compounds	7440-38-2	Yes	HI3	2.4E-05	1.7E-04	1.3E-03	2.4E-03	6.2E-04	2.4E-03	0.20
Beryllium and compounds	7440-41-7	Yes	HI3	4.2E-04	7.0E-03	0.011	0.031	5.0E-03	0.031	0.020
Cadmium and compounds	7440-43-9	Yes	HI3	5.6E-04	5.0E-03	0.014	0.037	6.7E-03	0.037	0.030
Chromium VI (particulate)	18540-29-9	Yes	HI3	3.1E-05	0.083	5.2E-04	0.88	1.0E-03	0.88	0.30
Cobalt and compounds	7440-48-4	Yes	HI3	--	0.10	--	0.44	--	0.44	--
Aluminum and compounds	7429-90-5	Yes	HI5	--	5.00	--	22.0	--	22.0	--
Copper and compounds	7440-50-8	Yes	HI3	--	--	--	--	--	--	100
Lead and compounds	7439-92-1	Yes	HI3	--	0.15	--	0.66	--	0.66	0.15
Manganese and compounds	7439-96-5	Yes	HI3	--	0.090	--	0.40	--	0.40	0.30
Mercury and compounds	7439-97-6	Yes	HI3	--	0.077	--	0.63	--	0.63	0.60
Nickel and compounds (insoluble)	365	Yes	HI3	3.8E-03	0.014	0.10	0.062	0.046	0.062	0.20
Selenium and compounds	7782-49-2	Yes	HI3	--	--	--	--	--	--	2.00
Vanadium (fume or dust)	7440-62-2	Yes	HI3	--	0.10	--	0.44	--	0.44	0.80
Acetaldehyde	75-07-0	Yes	HI3	0.45	140	12.0	620	5.50	620	470
Acetone	67-64-1	Yes	HI3	--	31,000	--	140,000	--	140,000	62,000
Acrolein	107-02-8	Yes	HI5	--	0.35	--	1.50	--	1.50	6.90
Ammonia	7664-41-7	Yes	HI3	--	500	--	2,200	--	2,200	1,200
Benzene	71-43-2	Yes	HI3	0.13	3.00	3.30	13.0	1.50	13.0	29.0
Carbon tetrachloride	56-23-5	Yes	HI3	0.17	100	4.30	440	2.00	440	1,900
Chlorine	7782-50-5	Yes	HI3	--	0.15	--	0.66	--	0.66	170
Ethylene glycol monobutyl ether	111-76-2	Yes	HI3	--	82.0	--	360	--	360	29,000
Epichlorohydrin	106-89-8	Yes	HI3	0.043	3.00	1.10	13.0	0.52	13.0	1,300
Vinyl acetate	108-05-4	Yes	HI3	--	200	--	880	--	880	200
Chlorobenzene	108-90-7	Yes	HI3	--	50.0	--	220	--	220	--
Chloroform	67-66-3	Yes	HI3	--	300	--	1,300	--	1,300	490
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Yes	HI3	--	4.00	--	18.0	--	18.0	230
3-Methylcholanthrene	56-49-5	Yes	--	1.6E-04	--	4.1E-03	--	1.9E-03	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	Yes	--	1.4E-05	--	3.7E-04	--	1.7E-04	--	--
Ethyl benzene	100-41-4	Yes	HI3	0.40	260	10.0	1,100	4.80	1,100	22,000
Formaldehyde	50-00-0	Yes	HI3	0.17	9.00	4.30	40.0	2.00	40.0	49.0
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	Yes	HI3	--	3,000	--	13,000	--	13,000	--
Isopropylbenzene (Cumene)	98-82-8	Yes	HI3	--	400	--	1,800	--	1,800	--
Hexane	110-54-3	Yes	HI3	--	700	--	3,100	--	3,100	--
Isopropyl alcohol	67-63-0	Yes	HI3	--	200	--	880	--	880	3,200
Methanol	67-56-1	Yes	HI3	--	4,000	--	18,000	--	18,000	28,000
1,3,5-Trimethylbenzene	108-67-8	Yes	HI3	--	60.0	--	260	--	260	--
Fluorides	239	Yes	HI3	--	2.30	--	20.0	--	20.0	240
1,2,3-Trimethylbenzene	526-73-8	Yes	HI3	--	60.0	--	260	--	260	--
Cyclohexane	110-82-7	Yes	HI3	--	6,000	--	26,000	--	26,000	--
Bromomethane (Methyl bromide)	74-83-9	Yes	HI3	--	5.00	--	22.0	--	22.0	3,900
Chloromethane (Methyl chloride)	74-87-3	Yes	HI3	--	90.0	--	400	--	400	1,000
1,3-Butadiene	106-99-0	Yes	HI3	0.033	2.00	0.86	8.80	0.40	8.80	660
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	Yes	HI3	--	5,000	--	22,000	--	22,000	11,000
1,2,4-Trimethyl benzene	95-63-6	Yes	HI3	--	60.0	--	260	--	260	--
Dichloromethane (Methylene chloride)	75-09-2	Yes	HI3	59.0	600	620	2,600	1,200	2,600	2,100
2-Butanone (Methyl ethyl ketone)	78-93-3	Yes	HI3	--	5,000	--	22,000	--	22,000	5,000
Phenol	108-95-2	Yes	HI3	--	200	--	880	--	880	5,800
Propylene	115-07-1	Yes	HI3	--	3,000	--	13,000	--	13,000	--
Propionaldehyde	123-38-6	Yes	HI5	--	8.00	--	35.0	--	35.0	--
Styrene	100-42-5	Yes	HI3	--	1,000	--	4,400	--	4,400	21,000
Toluene	108-88-3	Yes	HI3	--	5,000	--	22,000	--	22,000	7,500
Xylene (mixture)	1330-20-7	Yes	HI3	--	220	--	970	--	970	8,700
Vinyl Chloride	75-01-4	Yes	HI3	0.11	100	0.22	440	2.70	440	1,300
Trichloroethene (TCE, Trichloroethylene)	79-01-6	Yes	HI3	0.20	2.10	3.50	9.20	2.90	9.20	2.10
m-Xylene	108-38-3	Yes	HI3	--	200	--	880	--	880	8,700
p-Xylene	106-42-3	Yes	HI3	--	200	--	880	--	880	8,700
o-Xylene	95-47-6	Yes	HI3	--	200	--	880	--	880	8,700
Hydrogen fluoride	7664-39-3	Yes	HI3	--	2.10	--	19.0	--	19.0	16.0
Hydrochloric acid	7647-01-0	Yes	HI3	--	20.0	--	88.0	--	88.0	2,100
DPM	200	Yes	HI3	0.10	5.00	2.60	22.0	1.20	22.0	--
PAHs (excluding Naphthalene)	401	Yes	--	4.3E-05	--	1.6E-03	--	3.0E-03	--	--
Benz[a]anthracene	56-55-3	Yes	--	2.1E-04	--	7.8E-03	--	0.015	--	--
Benzo[a]pyrene	50-32-8	Yes	HI3	4.3E-05	2.0E-03	1.6E-03	8.8E-03	3.0E-03	8.8E-03	2.0E-03
Benzo[b]fluoranthene	205-99-2	Yes	--	5.3E-05	--	2.0E-03	--	3.8E-03	--	--
Benzo[g,h,i]perylene	191-24-2	Yes	--	4.7E-03	--	0.17	--	0.34	--	--
Benzo[j]fluoranthene	205-82-3	Yes	--	1.4E-04	--	5.2E-03	--	0.010	--	--
Benzo[k]fluoranthene	207-08-9	Yes	--	1.4E-03	--	0.052	--	0.10	--	--
Chrysene	218-01-9	Yes	--	4.3E-04	--	0.016	--	0.030	--	--
Fluoranthene	206-44-0	Yes	--	5.3E-04	--	0.020	--	0.038	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	--	6.1E-04	--	0.022	--	0.043	--	--
Naphthalene	91-20-3	Yes	HI3	0.029	3.70	0.76	16.0	0.35	16.0	200
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	Yes	HI3	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	Yes	HI3	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	Yes	HI3	1.0E-07	1.3E-05	9.0E-06	2.6E-03	4.2E-06	2.6E-03	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Yes	HI3	3.4E-06	4.2E-04	3.0E-04	0.085	1.4E-04	0.085	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	Yes	HI3	3.4E-08	4.2E-06	3.0E-06	8.5E-04	1.4E-06	8.5E-04	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	Yes	HI3	3.4E-09	4.2E-07	3.0E-07	8.5E-05	1.4E-07	8.5E-05	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	Yes	HI3	1.0E-08	1.3E-06	9.0E-07	2.6E-04	4.2E-07	2.6E-04	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	Yes	HI3	1.0E-07	1.3E-05	9.0E-06	2.6E-03	4.2E-06	2.6E-03	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	Yes	HI3	1.0E-07	1.3E-05	9.0E-06	2.6E-03	4.2E-06	2.6E-03	--
Octachlorodibenzofuran (OCDF)	39001-02-0	Yes	HI3	3.4E-06	4.2E-04	3.0E-04	0.085	1.4E-04	0.085	--
Total PCBs	1336-36-3	Yes	--	5.3E-04	--	0.020	--	9.2E-03	--	--
2,4-Dinitrotoluene	121-14-2	Yes	--	0.011	--	0.29	--	0.13	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	--	0.080	--	11.0	--	5.00	--	--
Hydrogen cyanide	74-90-8	Yes	HI3	--	0.80	--	3.50	--	3.50	340
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	Yes	HI3	0.038	7.00	1.00	31.0	0.46	31.0	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	Yes	HI3	0.091	60.0	2.40	260	1.10	260	12,000
2,4,6-Trichlorophenol	88-06-2	Yes	--	0.050	--	1.30	--	0.60	--	--
Pentachlorophenol	87-86-5	Yes	--	0.20	--	5.10	--	2.40	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	Yes	HI3	3.80	41.0	100	180	46.0	180	41.0

Notes

TAC = toxic air contaminant; ug/m^3 = micrograms per cubic meter; RAL = risk action level; RBC = risk based concentration.

References

[1] See Oregon Administrative Rule 340-245-8010 Table 2.

Table 7-2
List of TACs with No Published Risk-Based Concentrations
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS or DEQ ID	Risk-Based Concentration? [1] (Yes/No)
Barium and compounds	7440-39-3	No
Zinc oxide	1314-13-2	No
Phosphorus and compounds	504	No
Molybdenum trioxide	1313-27-5	No
Silver and compounds	7440-22-4	No
Thallium and compounds	7440-28-0	No
Zinc and compounds	7440-66-6	No
Acetophenone	98-86-2	No
Butyl benzyl phthalate	85-68-7	No
Dipropylene glycol monomethyl ether	34590-94-8	No
Crotonaldehyde	4170-30-3	No
Dibutyl phthalate	84-74-2	No
Diethylphthalate	84-66-2	No
Acenaphthene	83-32-9	No
Acenaphthylene	208-96-8	No
Anthracene	120-12-7	No
Benzo[e]pyrene	192-97-2	No
Fluorene	86-73-7	No
2-Methyl naphthalene	91-57-6	No
Perylene	198-55-0	No
Phenanthrene	85-01-8	No
Pyrene	129-00-0	No
Decachlorobiphenyl	2051-24-3	No
1-Methylphenanthrene	832-69-9	No
4,6-Dinitro-o-cresol (and salts)	534-52-1	No
di-n-octylphthalateb	518	No
4-nitrophenol	100-02-7	No
2-Chlorophenol	95-57-8	No
2,4-Dinitrophenol	51-28-5	No
Trichlorofluoromethane (Freon 11)	75-69-4	No

References

[1] See Oregon Administrative Rule 340-245-8010 Table 2.

Table 8-1
AAQS Modeling Results
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Pollutant	Averaging Period	NAAQS [1] (ug/m^3)	Background Conc. [2] (ug/m^3)	$PM_{2.5}$ Daily Secondary Impact [3] (ug/m^3)	Maximum Predicted Conc. [4] (ug/m^3)	Design Value [a] (ug/m^3)	Design Value Exceeds AAQS? (Yes or No)	Percent of AAQS [b] (%)
$PM_{2.5}$	24-hour	35	16.0	0.052	4.47	20.5	**No**	58.6

Notes

ug/m^3 = microgram per cubic meter; AAQS = Ambient Air Quality Standard.

[a] Design value (ug/m^3) = (maximum predicted concentration [ug/m^3]) + (background concentration [ug/m^3])

[b] Percent of AAQS (%) = (design value [ug/m^3]) / (AAQS [ug/m^3]) x (100%)

References

[1] Oregon Administrative Rule 340-202-0060(2).

[2] See Table 6-3, Assessments, Background Concentrations, and Preliminary AAQS Review.

[3] See Table 6-1, Secondary Impacts from PM2.5 Precursors.

[4] Attainment with the 24-hour $PM_{2.5}$ standard is achieved when the average of annual 98th percentile of 24-hour concentrations is equal to or less than the standard.
Value represents the highest of the eighth high concentration obtained from the AERMOD output file.

Table 8-2
Maximum Predicted Risk Exposure Location per Significant TEU (MC SU Scenario)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Modeled Toxic Emission Unit	Cancer						Noncancer					
	Residential		Worker		Child		Residential		Worker		Child	
	Exposure Location [1] (Location of Maximum Risk)	Dispersion Factor (ug/m^3/[g/s])	Exposure Location [1] (Location of Maximum Risk)	Dispersion Factor (ug/m^3/[g/s])	Exposure Location [1] (Location of Maximum Risk)	Dispersion Factor (ug/m^3/[g/s])	Exposure Location [1] (Location of Maximum Risk)	Dispersion Factor (ug/m^3/[g/s])	Exposure Location [1] (Location of Maximum Risk)	Dispersion Factor (ug/m^3/[g/s])	Exposure Location [1] (Location of Maximum Risk)	Dispersion Factor (ug/m^3/[g/s])
HBLR_SCR	2,631	1.319	14,830	2.154	1	0.148	2,055	1.734	14,702	2.894	1	0.148
HBLR_ESP	2,631	0.105	14,830	0.093	1	0.031	2,055	0.519	14,702	0.103	1	0.031
HBLR_MC	2,631	0.311	14,830	0.252	1	0.057	2,055	1.220	14,702	0.295	1	0.057
RF12_STK	2,631	3.387	14,830	4.031	1	0.465	2,055	3.135	14,702	5.429	1	0.465
PVUV_STK	2,631	0.815	14,830	0.690	1	0.111	2,055	1.516	14,702	0.743	1	0.111
FORM_STK	2,631	5.560	14,830	6.438	1	0.564	2,055	5.733	14,702	10.087	1	0.564
HEADBOX	2,631	3.564	14,830	5.602	1	0.630	2,055	4.251	14,702	7.372	1	0.630
S_CYC	2,631	6.444	14,830	10.875	1	0.624	2,055	10.758	14,702	15.487	1	0.624
SM_CHP	2,631	37.663	14,830	47.699	1	0.609	2,055	27.979	14,702	55.044	1	0.609
FIRE	2,631	5.754	14,830	9.294	1	0.644	2,055	8.911	14,702	13.593	1	0.644
BGEN	2,631	5.434	14,830	7.770	1	0.645	2,055	8.129	14,702	10.539	1	0.645
EGEN01	2,631	6.028	14,830	8.023	1	0.553	2,055	8.895	14,702	11.775	1	0.553
KILN1_1	2,631	65.919	14,830	34.698	1	0.607	2,055	9.226	14,702	28.322	1	0.607
KILN1_2	2,631	67.653	14,830	35.477	1	0.608	2,055	8.941	14,702	28.811	1	0.608
KILN1_3	2,631	69.317	14,830	36.315	1	0.609	2,055	8.669	14,702	29.337	1	0.609
KILN1_4	2,631	71.041	14,830	37.168	1	0.610	2,055	8.413	14,702	29.859	1	0.610
KILN2_1	2,631	48.121	14,830	28.999	1	0.592	2,055	7.679	14,702	24.067	1	0.592
KILN2_2	2,631	48.922	14,830	29.958	1	0.593	2,055	7.363	14,702	24.730	1	0.593
KILN2_3	2,631	49.600	14,830	30.957	1	0.594	2,055	7.072	14,702	25.410	1	0.594
KILN3_1	2,631	41.485	14,830	29.788	1	0.593	2,055	7.792	14,702	25.278	1	0.593
KILN3_2	2,631	41.667	14,830	30.775	1	0.594	2,055	7.468	14,702	26.008	1	0.594
KILN3_3	2,631	41.704	14,830	31.812	1	0.595	2,055	7.170	14,702	26.768	1	0.595
KILN4_1	2,631	35.546	14,830	30.282	1	0.593	2,055	7.903	14,702	26.374	1	0.593
KILN4_2	2,631	35.380	14,830	31.272	1	0.595	2,055	7.571	14,702	27.168	1	0.595
KILN4_3	2,631	35.106	14,830	32.308	1	0.596	2,055	7.266	14,702	27.994	1	0.596
KILN5_1	2,631	30.302	14,830	30.522	1	0.594	2,055	8.005	14,702	27.446	1	0.594
KILN5_2	2,631	29.948	14,830	31.490	1	0.595	2,055	7.663	14,702	28.307	1	0.595
KILN5_3	2,631	29.529	14,830	32.500	1	0.597	2,055	7.348	14,702	29.209	1	0.597
KILN6_1	2,631	26.077	14,830	30.371	1	0.595	2,055	8.137	14,702	28.347	1	0.595
KILN6_2	2,631	25.713	14,830	31.249	1	0.596	2,055	7.788	14,702	29.229	1	0.596
KILN6_3	2,631	25.294	14,830	32.179	1	0.598	2,055	7.463	14,702	30.178	1	0.598
WHITE	2,631	10.271	14,830	17.414	1	0.641	2,055	9.823	14,702	26.198	1	0.641
MACH	2,631	14.343	14,830	20.716	1	0.645	2,055	11.343	14,702	30.803	1	0.645
RF12_RV	2,631	9.301	14,830	14.473	1	0.648	2,055	8.967	14,702	21.008	1	0.648
HPVUV_FUG	2,631	8.727	14,830	13.866	1	0.645	2,055	6.859	14,702	20.957	1	0.645
FORM_FUG	2,631	15.788	14,830	23.831	1	0.642	2,055	11.674	14,702	36.336	1	0.642
GAS	2,631	43.268	14,830	109.045	1	0.663	2,055	5.593	14,702	329.102	1	0.663
RESIN1	2,631	8.607	14,830	13.173	1	0.647	2,055	9.171	14,702	18.838	1	0.647
RESIN2	2,631	8.655	14,830	13.186	1	0.648	2,055	9.074	14,702	18.789	1	0.648
RESIN3	2,631	8.705	14,830	13.207	1	0.649	2,055	8.974	14,702	18.743	1	0.649
PAINT	2,631	25.181	14,830	39.945	1	0.660	2,055	7.081	14,702	74.321	1	0.660
WELD	2,631	15.237	14,830	21.858	1	0.666	2,055	7.400	14,702	31.350	1	0.666
BPOT	2,631	11.383	14,830	19.926	1	0.613	2,055	16.084	14,702	27.150	1	0.613
SCR_HYDRO	2,631	10.008	14,830	15.492	1	0.650	2,055	12.859	14,702	22.195	1	0.650
HYDRO	2,631	9.986	14,830	14.186	1	0.669	2,055	10.054	14,702	20.194	1	0.669
CLAR	2,631	6.037	14,830	10.898	1	0.766	2,055	1.854	14,702	11.110	1	0.766
PIT	2,631	6.112	14,830	11.072	1	0.763	2,055	1.895	14,702	11.176	1	0.763
LSP	2,631	34.008	14,830	72.405	1	0.638	2,055	11.090	14,702	101.106	1	0.638
S_POND	2,631	7.075	14,830	13.253	1	0.770	2,055	2.147	14,702	12.802	1	0.770
R_POND	2,631	9.397	14,830	20.478	1	0.749	2,055	2.486	14,702	19.567	1	0.749
SURGE	2,631	8.453	14,830	16.873	1	0.753	2,055	2.454	14,702	15.943	1	0.753
ABASE	2,631	7.919	14,830	15.237	1	0.755	2,055	2.308	14,702	16.190	1	0.755
E_POND	2,631	1.725	14,830	2.286	1	0.908	2,055	1.725	14,702	2.314	1	0.908

References

[1] Exposure location represents the following receptor ID coordinates in the unit emission rate dispersion model with the highest predicted cancer or noncancer risk:

Receptor ID	UTM X (m)	UTM Y (m)	Exposure
1	488,734	5,031,353	Child
2,631	485,405	5,034,912	Residential (Cancer)
2,055	485,105	5,035,112	Residential (Noncancer)
2,009	485,080	5,035,137	Acute
14,830	485,468	5,034,785	Worker (Cancer)
14,702	485,441	5,034,753	Worker (Noncancer)

Table 8-3
Maximum Predicted Risk Exposure Location per Significant TEU (Scrubber SU Scenario)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Modeled Toxic Emission Unit	Cancer						Noncancer					
	Residential		Worker		Child		Residential		Worker		Child	
	Exposure Location [(1)] (Location of Maximum Risk)	Dispersion Factor ($ug/m^3/[g/s]$)	Exposure Location [(1)] (Location of Maximum Risk)	Dispersion Factor ($ug/m^3/[g/s]$)	Exposure Location [(1)] (Location of Maximum Risk)	Dispersion Factor ($ug/m^3/[g/s]$)	Exposure Location [(1)] (Location of Maximum Risk)	Dispersion Factor ($ug/m^3/[g/s]$)	Exposure Location [(1)] (Location of Maximum Risk)	Dispersion Factor ($ug/m^3/[g/s]$)	Exposure Location [(1)] (Location of Maximum Risk)	Dispersion Factor ($ug/m^3/[g/s]$)
HBLR_SCR_SU	2,631	1.319	14,831	2.496	1	0.148	2,100	2.055	14,702	2.894	1	0.148
HBLR_ESP	2,631	0.105	14,831	0.097	1	0.031	2,100	0.410	14,702	0.103	1	0.031
RF12_STK	2,631	3.387	14,831	4.581	1	0.465	2,100	3.232	14,702	5.429	1	0.465
PVUV_STK	2,631	0.815	14,831	0.725	1	0.111	2,100	1.723	14,702	0.743	1	0.111
FORM_STK	2,631	5.560	14,831	7.936	1	0.564	2,100	5.738	14,702	10.087	1	0.564
HEADBOX	2,631	3.564	14,831	6.325	1	0.630	2,100	4.421	14,702	7.372	1	0.630
S_CYC	2,631	6.444	14,831	12.697	1	0.624	2,100	9.730	14,702	15.487	1	0.624
SM_CHP	2,631	37.663	14,831	52.638	1	0.609	2,100	31.179	14,702	55.044	1	0.609
FIRE	2,631	5.754	14,831	11.109	1	0.644	2,100	8.849	14,702	13.593	1	0.644
BGEN	2,631	5.434	14,831	8.780	1	0.645	2,100	7.957	14,702	10.539	1	0.645
EGEN01	2,631	6.028	14,831	9.625	1	0.553	2,100	8.551	14,702	11.775	1	0.553
KILN1_1	2,631	65.919	14,831	31.934	1	0.607	2,100	10.392	14,702	28.322	1	0.607
KILN1_2	2,631	67.653	14,831	32.578	1	0.608	2,100	10.032	14,702	28.811	1	0.608
KILN1_3	2,631	69.317	14,831	33.270	1	0.609	2,100	9.691	14,702	29.337	1	0.609
KILN1_4	2,631	71.041	14,831	33.968	1	0.610	2,100	9.373	14,702	29.859	1	0.610
KILN2_1	2,631	48.121	14,831	26.928	1	0.592	2,100	8.655	14,702	24.067	1	0.592
KILN2_2	2,631	48.922	14,831	27.761	1	0.593	2,100	8.255	14,702	24.730	1	0.593
KILN2_3	2,631	49.600	14,831	28.623	1	0.594	2,100	7.891	14,702	25.410	1	0.594
KILN3_1	2,631	41.485	14,831	28.023	1	0.593	2,100	8.774	14,702	25.278	1	0.593
KILN3_2	2,631	41.667	14,831	28.913	1	0.594	2,100	8.364	14,702	26.008	1	0.594
KILN3_3	2,631	41.704	14,831	29.848	1	0.595	2,100	7.989	14,702	26.768	1	0.595
KILN4_1	2,631	35.546	14,831	28.928	1	0.593	2,100	8.942	14,702	26.374	1	0.593
KILN4_2	2,631	35.380	14,831	29.866	1	0.595	2,100	8.515	14,702	27.168	1	0.595
KILN4_3	2,631	35.106	14,831	30.847	1	0.596	2,100	8.126	14,702	27.994	1	0.596
KILN5_1	2,631	30.302	14,831	29.721	1	0.594	2,100	9.149	14,702	27.446	1	0.594
KILN5_2	2,631	29.948	14,831	30.697	1	0.595	2,100	8.699	14,702	28.307	1	0.595
KILN5_3	2,631	29.529	14,831	31.723	1	0.597	2,100	8.290	14,702	29.209	1	0.597
KILN6_1	2,631	26.077	14,831	30.236	1	0.595	2,100	9.406	14,702	28.347	1	0.595
KILN6_2	2,631	25.713	14,831	31.192	1	0.596	2,100	8.938	14,702	29.229	1	0.596
KILN6_3	2,631	25.294	14,831	32.216	1	0.598	2,100	8.508	14,702	30.178	1	0.598
WHITE	2,631	10.271	14,831	20.913	1	0.641	2,100	10.073	14,702	26.198	1	0.641
MACH	2,631	14.343	14,831	25.019	1	0.645	2,100	11.517	14,702	30.803	1	0.645
RF12_RV	2,631	9.301	14,831	17.131	1	0.648	2,100	9.106	14,702	21.008	1	0.648
HPVUV_FUG	2,631	8.727	14,831	16.694	1	0.645	2,100	7.235	14,702	20.957	1	0.645
FORM_FUG	2,631	15.788	14,831	29.139	1	0.642	2,100	12.009	14,702	36.336	1	0.642
GAS	2,631	43.268	14,831	174.743	1	0.663	2,100	5.852	14,702	329.102	1	0.663
RESIN1	2,631	8.607	14,831	15.440	1	0.647	2,100	9.122	14,702	18.838	1	0.647
RESIN2	2,631	8.655	14,831	15.454	1	0.648	2,100	9.051	14,702	18.789	1	0.648
RESIN3	2,631	8.705	14,831	15.475	1	0.649	2,100	8.978	14,702	18.743	1	0.649
PAINT	2,631	25.181	14,831	52.530	1	0.660	2,100	7.575	14,702	74.321	1	0.660
WELD	2,631	15.237	14,831	25.878	1	0.666	2,100	7.705	14,702	31.350	1	0.666
BPOT	2,631	11.383	14,831	23.137	1	0.613	2,100	14.339	14,702	27.150	1	0.613
SCR_HYDRO	2,631	10.008	14,831	18.545	1	0.650	2,100	12.835	14,702	22.195	1	0.650
HYDRO	2,631	9.986	14,831	16.542	1	0.669	2,100	10.317	14,702	20.194	1	0.669
CLAR	2,631	6.037	14,831	10.940	1	0.766	2,100	1.889	14,702	11.110	1	0.766
PIT	2,631	6.112	14,831	11.188	1	0.763	2,100	1.888	14,702	11.176	1	0.763
LSP	2,631	34.008	14,831	89.686	1	0.638	2,100	12.270	14,702	101.106	1	0.638
S_POND	2,631	7.075	14,831	13.328	1	0.770	2,100	2.116	14,702	12.802	1	0.770
R_POND	2,631	9.397	14,831	20.185	1	0.749	2,100	2.494	14,702	19.567	1	0.749
SURGE	2,631	8.453	14,831	16.191	1	0.753	2,100	2.500	14,702	15.943	1	0.753
ABASE	2,631	7.919	14,831	15.767	1	0.755	2,100	2.551	14,702	16.190	1	0.755
E_POND	2,631	1.725	14,831	2.314	1	0.908	2,100	1.063	14,702	2.357	1	0.908

References

[(1)] Exposure location represents the following receptor ID coordinates in the unit emission rate dispersion model with the highest predicted cancer or noncancer risk:

Receptor ID	UTM X (m)	UTM Y (m)	Exposure
1	488,734	5,031,353	Child
2,631	485,405	5,034,912	Residential (Cancer)
2,100	485,130	5,035,112	Residential (Noncancer)
2,010	485,080	5,035,162	Acute
14,831	485,455	5,034,769	Worker (Cancer)
14,702	485,441	5,034,753	Worker (Noncancer)

Table 8-4
Level 3 Risk Assessment Results for Significant TEUs (MC SU Scenario)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Hazard Index [3]
Exposure Location [4]			2,631			14,830			1			2,631			14,702			1		--
Cumulative Facility-wide Risk [5]		--	--	26.9	--	--	1.8	--	--	<0.1	--	--	1.1	--	--	0.2	--	--	<0.1	2.50877
HBLR_SCR																				
Cumulative TEU Risk		--	--	2.57	--	--	0.16	--	--	6.1E-03	--	--	0.44	--	--	0.065	--	--	3.3E-03	--
Dispersion Factor (ug/m³/[g/s])			1.32			2.15			0.15			1.73			2.89			0.15		--
Antimony and compounds	7440-36-0	8.9E-06	[6]	--	1.5E-05	[7]	--	1.0E-06	[8]	--	1.2E-05	0.30	3.9E-05 [b]	2.0E-05	1.30	1.5E-05 [b]	1.0E-06	1.30	7.7E-07 [b]	--
Arsenic and compounds	7440-38-2	4.9E-05	2.4E-05	2.06 [b]	8.1E-05	6.2E-04	0.13 [b]	5.5E-06	1.3E-03	4.3E-03 [b]	6.5E-05	1.7E-04	0.38 [b]	1.1E-04	2.4E-03	0.045 [b]	5.5E-06	2.4E-03	2.3E-03 [b]	--
Beryllium and compounds	7440-41-7	3.1E-07	4.2E-04	7.3E-04 [b]	5.0E-07	5.0E-03	1.0E-04 [b]	3.4E-08	0.011	3.1E-06 [b]	4.0E-07	7.0E-03	5.8E-05 [b]	6.7E-07	0.031	2.2E-05 [b]	3.4E-08	0.031	1.1E-06 [b]	--
Cadmium and compounds	7440-43-9	1.4E-05	5.6E-04	0.025 [b]	2.3E-05	6.7E-03	3.5E-03 [b]	1.6E-06	0.014	1.1E-04 [b]	1.9E-05	5.0E-03	3.7E-03 [b]	3.1E-05	0.037	8.4E-04 [b]	1.6E-06	0.037	4.3E-05 [b]	--
Chromium VI	18540-29-9	1.0E-06	3.1E-05	0.034 [b]	1.7E-06	1.0E-03	1.7E-03 [b]	1.2E-07	5.2E-04	2.3E-04 [b]	1.4E-06	0.083	1.7E-05 [b]	2.3E-06	0.88	2.6E-06 [b]	1.2E-07	0.88	1.3E-07 [b]	--
Cobalt and compounds	7440-48-4	2.9E-05	[6]	--	4.7E-05	[7]	--	3.2E-06	[8]	--	3.8E-05	0.10	3.8E-04 [b]	6.3E-05	0.44	1.4E-04 [b]	3.2E-06	0.44	7.4E-06 [b]	--
Copper and compounds	7440-50-8	8.1E-05	[6]	--	1.3E-04	[7]	--	9.1E-06	[8]	--	1.1E-04	[9]	--	1.8E-04	[10]	--	9.1E-06	[11]	--	--
Lead and compounds	7439-92-1	1.3E-04	[6]	--	2.2E-04	[7]	--	1.5E-05	[8]	--	1.8E-04	0.15	1.2E-03 [b]	2.9E-04	0.66	4.4E-04 [b]	1.5E-05	0.66	2.3E-05 [b]	--
Manganese and compounds	7439-96-5	1.1E-03	[6]	--	1.8E-03	[7]	--	1.2E-04	[8]	--	1.5E-03	0.090	0.016 [b]	2.4E-03	0.40	6.1E-03 [b]	1.2E-04	0.40	3.1E-04 [b]	--
Mercury and compounds	7439-97-6	5.3E-06	[6]	--	8.7E-06	[7]	--	6.0E-07	[8]	--	7.0E-06	0.077	9.1E-05 [b]	1.2E-05	0.63	1.9E-05 [b]	6.0E-07	0.63	9.5E-07 [b]	--
Nickel and compounds	365	3.3E-05	3.8E-03	8.6E-03 [b]	5.3E-05	0.046	1.2E-03	3.7E-06	0.10	3.7E-05	4.3E-05	0.014	3.1E-03 [b]	7.2E-05	0.062	1.2E-03 [b]	3.7E-06	0.062	5.9E-05 [b]	--
Selenium and compounds	7782-49-2	7.6E-06	[6]	--	1.2E-05	[7]	--	8.5E-07	[8]	--	1.0E-05	[9]	--	1.7E-05	[10]	--	8.5E-07	[11]	--	--
Vanadium (fume or dust)	7440-62-2	2.6E-06	[6]	--	4.3E-06	[7]	--	3.0E-07	[8]	--	3.5E-06	0.10	3.5E-05 [b]	5.8E-06	0.44	1.3E-05 [b]	3.0E-07	0.44	6.7E-07 [b]	--
Acetaldehyde	75-07-0	1.8E-03	0.45	4.0E-03 [b]	3.0E-03	5.50	5.4E-04 [b]	2.0E-04	12.0	1.7E-05 [b]	2.4E-03	140	1.7E-05 [b]	4.0E-03	620	6.4E-06 [b]	2.0E-04	620	3.3E-07 [b]	--
Acetone	67-64-1	8.4E-03	[6]	--	0.014	[7]	--	9.4E-04	[8]	--	0.011	31,000	3.5E-07 [b]	0.018	140,000	1.3E-07 [b]	9.4E-04	140,000	6.7E-09 [b]	--
Acrolein	107-02-8	2.8E-03	[6]	--	4.5E-03	[7]	--	3.1E-04	[8]	--	3.6E-03	0.35	0.010 [b]	6.1E-03	1.50	4.0E-03 [b]	3.1E-04	1.50	2.1E-04 [b]	--
Benzene	71-43-2	2.0E-03	0.13	0.016 [b]	3.3E-03	1.50	2.2E-03 [b]	2.3E-04	3.30	7.0E-05 [b]	2.7E-03	3.00	9.0E-04 [b]	4.5E-03	13.0	3.4E-04 [b]	2.3E-04	13.0	1.8E-05 [b]	--
Carbon tetrachloride	56-23-5	1.5E-05	0.17	8.6E-05 [b]	2.4E-05	2.00	1.2E-05 [b]	1.6E-06	4.30	3.8E-07 [b]	1.9E-05	100.0	1.9E-07 [b]	3.2E-05	440	7.3E-08 [b]	1.6E-06	440	3.7E-09 [b]	--
Chlorine	7782-50-5	1.2E-03	[6]	--	1.9E-03	[7]	--	1.3E-04	[8]	--	1.5E-03	0.15	0.010 [b]	2.6E-03	0.66	3.9E-03 [b]	1.3E-04	0.66	2.0E-04 [b]	--
Vinyl acetate	108-05-4	6.3E-06	[6]	--	1.0E-05	[7]	--	7.1E-07	[8]	--	8.3E-06	200	4.2E-08 [b]	1.4E-05	880	1.6E-08 [b]	7.1E-07	880	8.1E-10 [b]	--
Chlorobenzene	108-90-7	2.5E-05	[6]	--	4.0E-05	[7]	--	2.8E-06	[8]	--	3.2E-05	50.0	6.5E-07 [b]	5.4E-05	220	2.5E-07 [b]	2.8E-06	220	1.3E-08 [b]	--
Chloroform	67-66-3	3.0E-05	[6]	--	4.9E-05	[7]	--	3.3E-06	[8]	--	3.9E-05	300	1.3E-07 [b]	6.5E-05	1,300	5.0E-08 [b]	3.3E-06	1,300	2.6E-09 [b]	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	2.5E-05	[6]	--	4.1E-05	[7]	--	2.8E-06	[8]	--	3.3E-05	4.00	8.2E-06 [b]	5.5E-05	18.0	3.0E-06 [b]	2.8E-06	18.0	1.6E-07 [b]	--
Ethyl benzene	100-41-4	1.8E-05	0.40	4.5E-05 [b]	3.0E-05	4.80	6.2E-06 [b]	2.0E-06	10.0	2.0E-07 [b]	2.4E-05	260	9.1E-08 [b]	4.0E-05	1,100	3.6E-08 [b]	2.0E-06	1,100	1.8E-09 [b]	--
Formaldehyde	50-00-0	2.3E-03	0.17	0.013 [b]	3.7E-03	2.00	1.9E-03 [b]	2.6E-04	4.30	6.0E-05 [b]	3.0E-03	9.00	3.3E-04 [b]	5.0E-03	40.0	1.3E-04 [b]	2.6E-04	40.0	6.4E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.3E-03	[6]	--	2.0E-03	[7]	--	1.4E-04	[8]	--	1.6E-03	3,000	5.5E-07 [b]	2.8E-03	13,000	2.1E-07 [b]	1.4E-04	13,000	1.1E-08 [b]	--
Isopropylbenzene (Cumene)	98-82-8	3.4E-05	[6]	--	5.6E-05	[7]	--	3.9E-06	[8]	--	4.5E-05	400	1.1E-07 [b]	7.6E-05	1,800	4.2E-08 [b]	3.9E-06	1,800	2.2E-09 [b]	--
Hexane	110-54-3	4.3E-04	[6]	--	7.0E-04	[7]	--	4.8E-05	[8]	--	5.6E-04	700	8.0E-07 [b]	9.4E-04	3,100	3.0E-07 [b]	4.8E-05	3,100	1.5E-08 [b]	--
Isopropyl alcohol	67-63-0	6.7E-03	[6]	--	0.011	[7]	--	7.5E-04	[8]	--	8.8E-03	200	4.4E-05 [b]	0.015	880	1.7E-05 [b]	7.5E-04	880	8.6E-07 [b]	--
Methanol	67-56-1	1.3E-03	[6]	--	2.1E-03	[7]	--	1.5E-04	[8]	--	1.7E-03	4,000	4.3E-07 [b]	2.9E-03	18,000	1.6E-07 [b]	1.5E-04	18,000	8.2E-09 [b]	--
Bromomethane (Methyl bromide)	74-83-9	2.7E-05	[6]	--	4.4E-05	[7]	--	3.0E-06	[8]	--	3.5E-05	5.00	7.1E-06 [b]	5.9E-05	22.0	2.7E-06 [b]	3.0E-06	22.0	1.4E-07 [b]	--
Chloromethane (Methyl chloride)	74-87-3	1.1E-04	[6]	--	1.7E-04	[7]	--	1.2E-05	[8]	--	1.4E-04	90.0	1.5E-06 [b]	2.3E-04	400	5.8E-07 [b]	1.2E-05	400	3.0E-08 [b]	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	8.6E-05	[6]	--	1.4E-04	[7]	--	9.6E-06	[8]	--	1.1E-04	5,000	2.3E-08 [b]	1.9E-04	22,000	8.6E-09 [b]	9.6E-06	22,000	4.4E-10 [b]	--
1,2,4-Trimethyl benzene	95-63-6	1.5E-05	[6]	--	2.4E-05	[7]	--	1.6E-06	[8]	--	1.9E-05	60.0	3.2E-07 [b]	3.2E-05	260	1.2E-07 [b]	1.6E-06	260	6.3E-09 [b]	--
Dichloromethane (Methylene chloride)	75-09-2	7.8E-04	59.0	1.3E-05 [b]	1.3E-03	1,200	1.1E-06 [b]	8.8E-05	620	1.4E-07 [b]	1.0E-03	600	1.7E-06 [b]	1.7E-03	2,600	6.6E-07 [b]	8.8E-05	2,600	3.4E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	4.8E-04	[6]	--	7.8E-04	[7]	--	5.3E-05	[8]	--	6.3E-04	5,000	1.3E-07 [b]	1.0E-03	22,000	4.7E-08 [b]	5.3E-05	22,000	2.4E-09 [b]	--
Phenol	108-95-2	4.6E-03	[6]	--	7.5E-03	[7]	--	5.2E-04	[8]	--	6.0E-03	200	3.0E-05 [b]	0.010	880	1.1E-05 [b]	5.2E-04	880	5.9E-07 [b]	--
Propionaldehyde	123-38-6	1.2E-03	[6]	--	2.0E-03	[7]	--	1.4E-04	[8]	--	1.6E-03	8.00	2.0E-04 [b]	2.7E-03	35.0	7.8E-05 [b]	1.4E-04	35.0	4.0E-06 [b]	--
Styrene	100-42-5	7.2E-04	[6]	--	1.2E-03	[7]	--	8.1E-05	[8]	--	9.5E-04	1,000	9.5E-07 [b]	1.6E-03	4,400	3.6E-07 [b]	8.1E-05	4,400	1.8E-08 [b]	--
Toluene	108-88-3	9.8E-04	[6]	--	1.6E-03	[7]	--	1.1E-04	[8]	--	1.3E-03	5,000	2.6E-07 [b]	2.2E-03	22,000	9.8E-08 [b]	1.1E-04	22,000	5.0E-09 [b]	--
Xylene (mixture)	1330-20-7	7.7E-06	[6]	--	1.3E-05	[7]	--	8.7E-07	[8]	--	1.0E-05	220	4.6E-08 [b]	1.7E-05	970	1.8E-08 [b]	8.7E-07	970	9.0E-10 [b]	--
Vinyl Chloride	75-01-4	2.7E-05	0.11	2.5E-04 [b]	4.5E-05	2.70	1.7E-05 [b]	3.1E-06	0.22	1.4E-05 [b]	3.6E-05	100.0	3.6E-07 [b]	6.0E-05	440	1.4E-07 [b]	3.1E-06	440	7.0E-09 [b]	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	3.0E-05	0.20	1.5E-04 [b]	4.8E-05	2.90	1.7E-05 [b]	3.3E-06	3.50	9.5E-07 [b]	3.9E-05	2.10	1.8E-05 [b]	6.5E-05	9.20	7.0E-06 [b]	3.3E-06	9.20	3.6E-07 [b]	--
m-Xylene	108-38-3	2.9E-04	[6]	--	4.8E-04	[7]	--	3.3E-05	[8]	--	3.9E-04	200	1.9E-06 [b]	6.4E-04	880	7.3E-07 [b]	3.3E-05	880	3.7E-08 [b]	--
p-Xylene	106-42-3	2.9E-04	[6]	--	4.8E-04	[7]	--	3.3E-05	[8]	--	3.9E-04	200	1.9E-06 [b]	6.4E-04	880	7.3E-07 [b]	3.3E-05	880	3.7E-08 [b]	--
o-Xylene	95-47-6	5.1E-06	[6]	--	8.4E-06	[7]	--	5.8E-07	[8]	--	6.8E-06	200	3.4E-08 [b]	1.1E-05	880	1.3E-08 [b]	5.8E-07	880	6.6E-10 [b]	--
Hydrogen fluoride	7664-39-3	3.8E-05	[6]	--	6.2E-05	[7]	--	4.2E-06	[8]	--	5.0E-05	2.10	2.4E-05 [b]	8.3E-05	19.0	4.4E-06 [b]	4.2E-06	19.0	2.2E-07 [b]	--
Hydrochloric acid	7647-01-0	1.8E-04	[6]	--	2.9E-04	[7]	--	2.0E-05	[8]	--	2.3E-04	20.0	1.2E-05 [b]	3.8E-04	88.0	4.4E-06 [b]	2.0E-05	88.0	2.2E-07 [b]	--
Benz[a]anthracene	56-55-3	1.2E-06	2.1E-04	5.7E-03 [b]	2.0E-06	0.015	1.3E-04 [b]	1.4E-07	7.8E-03	1.7E-05 [b]	1.6E-06	[9]	--	2.6E-06	[10]	--	1.4E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	9.9E-06	4.3E-05	0.23 [b]	1.6E-05	3.0E-03	5.4E-03 [b]	1.1E-06	1.6E-03	6.9E-04 [b]	1.3E-05	2.0E-03	6.5E-03 [b]	2.2E-05	8.8E-03	2.5E-03 [b]	1.1E-06	8.8E-03	1.3E-04 [b]	--
Benzo[b]fluoranthene	205-99-2	2.1E-06	5.3E-05	0.040 [b]	3.4E-06	3.8E-03	9.0E-04 [b]	2.4E-07	2.0E-03	1.2E-04 [b]	2.8E-06	[9]	--	4.6E-06	[10]	--	2.4E-07	[11]	--	--
Benzo[g,h,i]perylene	191-24-2	2.2E-06	4.7E-03	4.8E-04 [b]	3.7E-06	0.34	1.1E-05 [b]	2.5E-07	0.17	1.5E-06 [b]	2.9E-06	[9]	--	4.9E-06	[10]	--	2.5E-07	[11]	--	--
Benzo[j]fluoranthene	205-82-3	2.3E-06	1.4E-04	0.017 [b]	3.8E-06	0.010	3.8E-04 [b]	2.6E-07	5.2E-03	5.0E-05 [b]	3.0E-06	[9]	--	5.1E-06	[10]	--	2.6E-07	[11]	--	--
Benzo[k]fluoranthene	207-08-9	7.7E-07	1.4E-03	5.5E-04 [b]	1.3E-06	0.10	1.3E-05 [b]	8.6E-08	0.052	1.7E-06 [b]	1.0E-06	[9]	--	1.7E-06	[10]	--	8.6E-08	[11]	--	--
Chrysene	218-01-9	1.2E-06	4.3E-04	2.7E-03 [b]	1.9E-06	0.030	6.4E-05 [b]	1.3E-07	0.016	8.2E-06 [b]	1.5E-06	[9]	--	2.6E-06	[10]	--	1.3E-07	[11]	--	--
Fluoranthene	206-44-0	2.5E-05	5.3E-04	0.047 [b]	4.0E-05	0.038	1.1E-03 [b]	2.8E-06	0.020	1.4E-04 [b]	3.3E-05	[9]	--	5.4E-05	[10]	--	2.8E-06	[11]	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	1.5E-06	6.1E-04	2.5E-03 [b]	2.5E-06	0.043	5.7E-05 [b]	1.7E-07	0.022	7.7E-06 [b]	2.0E-06	[9]	--	3.3E-06	[10]	--	1.7E-07	[11]	--	--
Naphthalene	91-20-3	1.3E-03	0.029	0.045 [b]	2.1E-03	0.35	6.0E-03 [b]	1.4E-04	0.76	1.9E-04 [b]	1.7E-03	3.70	4.6E-04 [b]	2.8E-03	16.0	1.8E-04 [b]	1.4E-04	16.0	9.1E-06 [b]	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	1.4E-12	1.0E-09	1.4E-03 [b]	2.3E-12	4.2E-08	5.5E-05 [b]	1.6E-13	9.0E-08	1.8E-06 [b]	1.9E-12	1.3E-07	1.4E-05 [b]	3.1E-12	2.6E-05	1.2E-07 [b]	1.6E-13	2.6E-05	6.1E-09 [b]	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	2.0E-12	1.0E-09	2.0E-03 [b]	3.2E-12	4.2E-08	7.7E-05 [b]	2.2E-13	9.0E-08	2.5E-06 [b]	2.6E-12	1.3E-07	2.0E-05 [b]	4.3E-12	2.6E-05	1.7E-07 [b]	2.2E-13	2.6E-05	8.5E-09 [b]	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	1.3E-12	1.0E-08	1.3E-04 [b]	2.1E-12	4.2E-07	5.0E-06 [b]	1.4E-13	9.0E-07	1.6E-07 [b]	1.7E-12	1.3E-06	1.3E-06 [b]	2.8E-12	2.6E-04	1.1E-08 [b]	1.4E-13	2.6E-04	5.6E-10 [b]	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	3.1E-12	1.0E-08	3.1E-04 [b]	5.1E-12	4.2E-07	1.2E-05 [b]	3.5E-13	9.0E-07	3.9E-07 [b]	4.1E-12	1.3E-06	3.1E-06 [b]	6.8E-12	2.6E-04	2.6E-08 [b]	3.5E-13	2.6E-04	1.3E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	3.3E-12	1.0E-08	3.3E-04 [b]	5.4E-12	4.2E-07	1.3E-05 [b]	3.7E-13	9.0E-07	4.1E-07 [b]	4.3E-12	1.3E-06	3.3E-06 [b]	7.2E-12	2.6E-04	2.8E-08 [b]	3.7E-13	2.6E-04	1.4E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	1.4E-11	1.0E-07	1.4E-04 [b]	2.4E-11	4.2E-06	5.6E-06 [b]	1.6E-12	9.0E-06	1.8E-07 [b]	1.9E-11	1.3E-05	1.5E-06 [b]	3.2E-11	2.6E-03	1.2E-08 [b]	1.6E-12	2.6E-03	6.3E-10 [b]	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	3.6E-11	3.4E-06	1.1E-05 [b]	6.0E-11	1.4E-04	4.3E-07 [b]	4.1E-12	3.0E-04	1.4E-08 [b]	4.8E-11	4.2E-04	1.1E-07 [b]	8.0E-11	0.085	9.4E-10 [b]	4.1E-12	0.085	4.8E-11 [b]	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	1.2E-11	1.0E-08	1.2E-03 [b]	1.9E-11	4.2E-07	4.6E-05 [b]	1.3E-12	9.0E-07	1.5E-06 [b]	1.6E-11	1.3E-06	1.2E-05 [b]	2.6E-11	2.6E-04	1.0E-07 [b]	1.3E-12	2.6E-04	5.1E-09 [b]	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	5.9E-12	3.4E-08	1.7E-04 [b]	9.7E-12	1.4E-06	6.9E-06 [b]	6.6E-13	3.0E-06	2.2E-07 [b]	7.8E-12	4.2E-06	1.9E-06 [b]	1.3E-11	8.5E-04	1.5E-08 [b]	6.6E-13	8.5E-04	7.8E-10 [b]	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	9.0E-12	3.4E-09	2.7E-03 [b]	1.5E-11	1.4E-07	1.1E-04 [b]	1.0E-12	3.0E-07	3.4E-06 [b]	1.2E-11	4.2E-07	2.8E-05 [b]	2.0E-11	8.5E-05	2.3E-07 [b]	1.0E-12	8.5E-05	1.2E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	5.3E-12	1.0E-08	5.3E-04 [b]	8.6E-12	4.2E-07	2.1E-05 [b]	5.9E-13	9.0E-07	6.6E-07 [b]	6.9E-12	1.3E-06	5.3E-06 [b]	1.2E-11	2.6E-04	4.5E-08 [b]	5.9E-13	2.6E-04	2.3E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	4.7E-12	1.0E-08	4.7E-04 [b]	7.7E-12	4.2E-07	1.8E-05 [b]	5.3E-13	9.0E-07	5.8E-07 [b]	6.2E-12	1.3E-06	4.7E-06 [b]	1.0E-11	2.6E-04	4.0E-08 [b]	5.3E-13	2.6E-04	2.0E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	9.9E-13	1.0E-08	9.9E-05 [b]	1.6E-12	4.2E-07	3.8E-06 [b]	1.1E-13	9.0E-07	1.2E-07 [b]	1.3E-12	1.3E-06	1.0E-06 [b]	2.2E-12	2.6E-04	8.3E-09 [b]	1.1E-13	2.6E-04	4.3E-10 [b]	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	3.9E-12	1.0E-08	3.9E-04 [b]	6.4E-12	4.2E-07	1.5E-05 [b]	4.4E-13	9.0E-07	4.9E-07 [b]	5.2E-12	1.3E-06	4.0E-06 [b]	8.7E-12	2.6E-04	3.3E-08 [b]	4.4E-13	2.6E-04	1.7E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	8.5E-12	1.0E-07	8.5E-05 [b]	1.4E-11	4.2E-06	3.3E-06 [b]	9.5E-13	9.0E-06	1.1E-07 [b]	1.1E-11	1.3E-05	8.6E-07 [b]	1.9E-11	2.6E-03	7.1E-09 [b]	9.5E-13	2.6E-03	3.7E-10 [b]	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	1.2E-12	1.0E-07	1.2E-05 [b]	1.9E-12	4.2E-06	4.6E-07 [b]	1.3E-13	9.0E-06	1.5E-08 [b]	1.6E-12	1.3E-05	1.2E-07 [b]	2.6E-12	2.6E-03	1.0E-09 [b]	1.3E-13	2.6E-03	5.1E-11 [b]	--
Octachlorodibenzofuran (OCDF)	39001-02-0	7.4E-12	3.4E-06	2.2E-06 [b]	1.2E-11	1.4E-04	8.6E-08 [b]	8.3E-13	3.0E-04	2.8E-09 [b]	9.7E-12	4.2E-04	2.3E-08 [b]	1.6E-11	0.085	1.9E-10 [b]	8.3E-13	0.085	9.8E-12 [b]	--
Total PCBs	1336-36-3	1.2E-08	5.3E-04	2.2E-05 [b]	1.9E-08	9.2E-03	2.1E-06 [b]	1.3E-09	0.020	6.5E-08 [b]	1.5E-08	[9]	--	2.6E-08	[10]	--	1.3E-09	[11]	--	--
2,4-Dinitrotoluene	121-14-2	1.4E-06	0.011	1.3E-04 [b]	2.3E-06	0.13	1.8E-05 [b]	1.6E-07	0.29	5.4E-07 [b]	1.8E-06	[9]	--	3.1E-06	[10]	--	1.6E-07	[11]	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	6.9E-08	0.080	8.6E-07 [b]	1.1E-07	5.00	2.3E-08 [b]	7.7E-09	11.0	7.0E-10 [b]	9.1E-08	[9]	--	1.5E-07	[10]	--	7.7E-09	[11]	--	--
Hydrogen cyanide	74-90-8	3.0E-05	[6]	--	5.0E-05	[7]	--	3.4E-06	[8]	--	4.0E-05	0.80	5.0E-05 [b]	6.7E-05	3.50	1.9E-05 [b]	3.4E-06	3.50	9.8E-07 [b]	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	4.3E-05	0.038	1.1E-03 [b]	7.1E-05	0.46	1.5E-04 [b]	4.9E-06	1.00	4.9E-06 [b]	5.7E-05	7.00	8.1E-06 [b]	9.5E-05	31.0	3.1E-06 [b]	4.9E-06	31.0	1.6E-07 [b]	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	4.1E-04	0.091	4.5E-03 [b]	6.8E-04	1.10	6.1E-04 [b]	4.6E-05	2.40	1.9E-05 [b]	5.4E-04	60.0	9.1E-06 [b]	9.1E-04	260	3.5E-06 [b]	4.6E-05	260	1.8E-07 [b]	--
2,4,6-Trichlorophenol	88-06-2	3.0E-07	0.050	5.9E-06 [b]	4.8E-07	0.60	8.1E-07 [b]	3.3E-08	1.30	2.6E-08 [b]	3.9E-07	[9]	--	6.5E-07	[10]	--	3.3E-08	[11]	--	--
Pentachlorophenol	87-86-5	3.2E-07	0.20	1.6E-06 [b]	5.2E-07	2.40	2.2E-07 [b]	3.6E-08	5.10	7.0E-09 [b]	4.2E-07	[9]	--	7.0E-07	[10]	--	3.6E-08	[11]	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	3.6E-05	3.80	9.6E-06 [b]	6.0E-05	46.0	1.3E-06 [b]	4.1E-06	100.0	4.1E-08 [b]	4.8E-05	41.0	1.2E-06 [b]	8.0E-05	180	4.4E-07 [b]	4.1E-06	180	2.3E-08 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
HBLR_ESP																				
Cumulative TEU Risk		--	--	0.89	--	--	0.024	--	--	6.6E-03	--	--	0.39	--	--	9.3E-03	--	--	2.8E-03	--
Dispersion Factor (ug/m^3/[g/s])		0.10			0.093			0.031			0.52			0.10			0.031			--
Antimony and compounds	7440-36-0	1.5E-06	[6]	--	1.3E-06	[7]	--	4.3E-07	[8]	--	7.3E-06	0.30	2.4E-05 [b]	1.4E-06	1.30	1.1E-06 [b]	4.3E-07	1.30	3.3E-07 [b]	--
Arsenic and compounds	7440-38-2	9.1E-06	2.4E-05	0.38 [b]	8.1E-06	6.2E-04	0.013 [b]	2.7E-06	1.3E-03	2.0E-03 [b]	4.5E-05	1.7E-04	0.27 [b]	9.0E-06	2.4E-03	3.7E-03 [b]	2.7E-06	2.4E-03	1.1E-03 [b]	--
Beryllium and compounds	7440-41-7	1.4E-07	4.2E-04	3.3E-04 [b]	1.2E-07	5.0E-03	2.4E-05 [b]	4.0E-08	0.011	3.6E-06 [b]	6.8E-07	7.0E-03	9.7E-05 [b]	1.4E-07	0.031	4.4E-06 [b]	4.0E-08	0.031	1.3E-06 [b]	--
Cadmium and compounds	7440-43-9	1.6E-06	5.6E-04	2.8E-03 [b]	1.4E-06	6.7E-03	2.1E-04 [b]	4.6E-07	0.014	3.3E-05 [b]	7.8E-06	5.0E-03	1.6E-03 [b]	1.5E-06	0.037	4.1E-05 [b]	4.6E-07	0.037	1.2E-05 [b]	--
Chromium VI	18540-29-9	1.3E-06	3.1E-05	0.042 [b]	1.2E-06	1.0E-03	1.2E-03 [b]	3.8E-07	5.2E-04	7.4E-04 [b]	6.5E-06	0.083	7.8E-05 [b]	1.3E-06	0.88	1.5E-06 [b]	3.8E-07	0.88	4.3E-07 [b]	--
Cobalt and compounds	7440-48-4	9.6E-06	[6]	--	8.5E-06	[7]	--	2.8E-06	[8]	--	4.8E-05	0.10	4.8E-04 [b]	9.4E-06	0.44	2.1E-05 [b]	2.8E-06	0.44	6.4E-06 [b]	--
Copper and compounds	7440-50-8	1.8E-05	[6]	--	1.6E-05	[7]	--	5.3E-06	[8]	--	9.1E-05	[9]	--	1.8E-05	[10]	--	5.3E-06	[11]	--	--
Lead and compounds	7439-92-1	2.5E-05	[6]	--	2.2E-05	[7]	--	7.3E-06	[8]	--	1.2E-04	0.15	8.3E-04 [b]	2.5E-05	0.66	3.7E-05 [b]	7.3E-06	0.66	1.1E-05 [b]	--
Manganese and compounds	7439-96-5	4.6E-04	[6]	--	4.1E-04	[7]	--	1.3E-04	[8]	--	2.3E-03	0.090	0.025 [b]	4.5E-04	0.40	1.1E-03 [b]	1.3E-04	0.40	3.4E-04 [b]	--
Mercury and compounds	7439-97-6	4.4E-06	[6]	--	4.0E-06	[7]	--	1.3E-06	[8]	--	2.2E-05	0.077	2.9E-04 [b]	4.4E-06	0.63	6.9E-06 [b]	1.3E-06	0.63	2.1E-06 [b]	--
Nickel and compounds	365	1.3E-05	3.8E-03	3.6E-03 [b]	1.2E-05	0.046	2.6E-04 [b]	3.9E-06	0.10	3.9E-05 [b]	6.7E-05	0.014	4.8E-03 [b]	1.3E-05	0.062	2.1E-04 [b]	3.9E-06	0.062	6.4E-05 [b]	--
Selenium and compounds	7782-49-2	7.8E-06	[6]	--	7.0E-06	[7]	--	2.3E-06	[8]	--	3.9E-05	[9]	--	7.7E-06	[10]	--	2.3E-06	[11]	--	--
Vanadium (fume or dust)	7440-62-2	2.9E-06	[6]	--	2.6E-06	[7]	--	8.4E-07	[8]	--	1.4E-05	0.10	1.4E-04 [b]	2.8E-06	0.44	6.4E-06 [b]	8.4E-07	0.44	1.9E-06 [b]	--
Acetaldehyde	75-07-0	5.5E-04	0.45	1.2E-03 [b]	4.9E-04	5.50	8.8E-05 [b]	1.6E-04	12.0	1.3E-05 [b]	2.7E-03	140	1.9E-05 [b]	5.4E-04	620	8.7E-07 [b]	1.6E-04	620	2.6E-07 [b]	--
Acetone	67-64-1	1.0E-03	[6]	--	9.1E-04	[7]	--	3.0E-04	[8]	--	5.1E-03	31,000	1.6E-07 [b]	1.0E-03	140,000	7.2E-09 [b]	3.0E-04	140,000	2.1E-09 [b]	--
Acrolein	107-02-8	5.0E-04	[6]	--	4.5E-04	[7]	--	1.5E-04	[8]	--	2.5E-03	0.35	7.1E-03 [b]	4.9E-04	1.50	3.3E-04 [b]	1.5E-04	1.50	9.8E-05 [b]	--
Benzene	71-43-2	1.9E-03	0.13	0.015 [b]	1.7E-03	1.50	1.1E-03 [b]	5.5E-04	3.30	1.7E-04 [b]	9.4E-03	3.00	3.1E-03 [b]	1.9E-03	13.0	1.4E-04 [b]	5.5E-04	13.0	4.2E-05 [b]	--
Carbon tetrachloride	56-23-5	1.9E-05	0.17	1.1E-04 [b]	1.7E-05	2.00	8.5E-06 [b]	5.6E-06	4.30	1.3E-06 [b]	9.4E-05	100.0	9.4E-07 [b]	1.9E-05	440	4.3E-08 [b]	5.6E-06	440	1.3E-08 [b]	--
Chlorine	7782-50-5	1.5E-03	[6]	--	1.4E-03	[7]	--	4.4E-04	[8]	--	7.6E-03	0.15	0.050 [b]	1.5E-03	0.66	2.3E-03 [b]	4.4E-04	0.66	6.7E-04 [b]	--
Chlorobenzene	108-90-7	3.2E-05	[6]	--	2.9E-05	[7]	--	9.3E-06	[8]	--	1.6E-04	50.0	3.2E-06 [b]	3.1E-05	220	1.4E-07 [b]	9.3E-06	220	4.2E-08 [b]	--
Chloroform	67-66-3	3.9E-05	[6]	--	3.5E-05	[7]	--	1.1E-05	[8]	--	1.9E-04	300	6.4E-07 [b]	3.8E-05	1,300	2.9E-08 [b]	1.1E-05	1,300	8.7E-09 [b]	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	3.2E-05	[6]	--	2.9E-05	[7]	--	9.5E-06	[8]	--	1.6E-04	4.00	4.0E-05 [b]	3.2E-05	18.0	1.8E-06 [b]	9.5E-06	18.0	5.3E-07 [b]	--
Ethyl benzene	100-41-4	2.4E-05	0.40	5.9E-05 [b]	2.1E-05	4.80	4.4E-06 [b]	6.9E-06	10.0	6.9E-07 [b]	1.2E-04	260	4.5E-07 [b]	2.3E-05	1,100	2.1E-08 [b]	6.9E-06	1,100	6.2E-09 [b]	--
Formaldehyde	50-00-0	2.0E-03	0.17	0.012 [b]	1.8E-03	2.00	9.0E-04 [b]	5.9E-04	4.30	1.4E-04 [b]	0.010	9.00	1.1E-03 [b]	2.0E-03	40.0	5.0E-05 [b]	5.9E-04	40.0	1.5E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	8.6E-04	[6]	--	7.6E-04	[7]	--	2.5E-04	[8]	--	4.3E-03	3,000	1.4E-06 [b]	8.4E-04	13,000	6.5E-08 [b]	2.5E-04	13,000	1.9E-08 [b]	--
Isopropylbenzene (Cumene)	98-82-8	3.4E-05	[6]	--	3.0E-05	[7]	--	1.0E-05	[8]	--	1.7E-04	400	4.2E-07 [b]	3.4E-05	1,800	1.9E-08 [b]	1.0E-05	1,800	5.5E-09 [b]	--
Hexane	110-54-3	5.6E-04	[6]	--	4.9E-04	[7]	--	1.6E-04	[8]	--	2.8E-03	700	3.9E-06 [b]	5.5E-04	3,100	1.8E-07 [b]	1.6E-04	3,100	5.2E-08 [b]	--
Isopropyl alcohol	67-63-0	8.7E-03	[6]	--	7.8E-03	[7]	--	2.5E-03	[8]	--	0.043	200	2.2E-04 [b]	8.6E-03	880	9.7E-06 [b]	2.5E-03	880	2.9E-06 [b]	--
Methanol	67-56-1	1.4E-03	[6]	--	1.3E-03	[7]	--	4.1E-04	[8]	--	7.0E-03	4,000	1.8E-06 [b]	1.4E-03	18,000	7.7E-08 [b]	4.1E-04	18,000	2.3E-08 [b]	--
Bromomethane (Methyl bromide)	74-83-9	2.2E-05	[6]	--	1.9E-05	[7]	--	6.4E-06	[8]	--	1.1E-04	5.00	2.2E-05 [b]	2.1E-05	22.0	9.7E-07 [b]	6.4E-06	22.0	2.9E-07 [b]	--
Chloromethane (Methyl chloride)	74-87-3	8.4E-05	[6]	--	7.5E-05	[7]	--	2.4E-05	[8]	--	4.2E-04	90.0	4.6E-06 [b]	8.2E-05	400	2.1E-07 [b]	2.4E-05	400	6.1E-08 [b]	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	1.1E-04	[6]	--	9.9E-05	[7]	--	3.3E-05	[8]	--	5.5E-04	5,000	1.1E-07 [b]	1.1E-04	22,000	5.0E-09 [b]	3.3E-05	22,000	1.5E-09 [b]	--
Dichloromethane (Methylene chloride)	75-09-2	7.7E-04	59.0	1.3E-05 [b]	6.8E-04	1,200	5.7E-07 [b]	2.2E-04	620	3.6E-07 [b]	3.8E-03	600	6.3E-06 [b]	7.5E-04	2,600	2.9E-07 [b]	2.2E-04	2,600	8.6E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.3E-05	[6]	--	1.2E-05	[7]	--	3.9E-06	[8]	--	6.7E-05	5,000	1.3E-08 [b]	1.3E-05	22,000	6.0E-10 [b]	3.9E-06	22,000	1.8E-10 [b]	--
Phenol	108-95-2	3.1E-04	[6]	--	2.7E-04	[7]	--	9.0E-05	[8]	--	1.5E-03	200	7.7E-06 [b]	3.0E-04	880	3.4E-07 [b]	9.0E-05	880	1.0E-07 [b]	--
Propionaldehyde	123-38-6	6.0E-04	[6]	--	5.3E-04	[7]	--	1.7E-04	[8]	--	3.0E-03	8.00	3.7E-04 [b]	5.9E-04	35.0	1.7E-05 [b]	1.7E-04	35.0	5.0E-06 [b]	--
Styrene	100-42-5	9.0E-04	[6]	--	8.1E-04	[7]	--	2.6E-04	[8]	--	4.5E-03	1,000	4.5E-06 [b]	8.9E-04	4,400	2.0E-07 [b]	2.6E-04	4,400	6.0E-08 [b]	--
Toluene	108-88-3	2.2E-05	[6]	--	2.0E-05	[7]	--	6.4E-06	[8]	--	1.1E-04	5,000	2.2E-08 [b]	2.2E-05	22,000	9.8E-10 [b]	6.4E-06	22,000	2.9E-10 [b]	--
Xylene (mixture)	1330-20-7	1.0E-05	[6]	--	9.0E-06	[7]	--	2.9E-06	[8]	--	5.0E-05	220	2.3E-07 [b]	9.9E-06	970	1.0E-08 [b]	2.9E-06	970	3.0E-09 [b]	--
Vinyl Chloride	75-01-4	3.5E-05	0.11	3.2E-04 [b]	3.2E-05	2.70	1.2E-05 [b]	1.0E-05	0.22	4.7E-05 [b]	1.8E-04	100.0	1.8E-06 [b]	3.5E-05	440	7.9E-08 [b]	1.0E-05	440	2.4E-08 [b]	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	3.8E-05	0.20	1.9E-04 [b]	3.4E-05	2.90	1.2E-05 [b]	1.1E-05	3.50	3.2E-06 [b]	1.9E-04	2.10	9.1E-05 [b]	3.8E-05	9.20	4.1E-06 [b]	1.1E-05	9.20	1.2E-06 [b]	--
Hydrogen fluoride	7664-39-3	1.7E-04	[6]	--	1.6E-04	[7]	--	5.1E-05	[8]	--	8.7E-04	2.10	4.1E-04 [b]	1.7E-04	19.0	9.0E-06 [b]	5.1E-05	19.0	2.7E-06 [b]	--
Hydrochloric acid	7647-01-0	1.5E-04	[6]	--	1.3E-04	[7]	--	4.4E-05	[8]	--	7.4E-04	20.0	3.7E-05 [b]	1.5E-04	88.0	1.7E-06 [b]	4.4E-05	88.0	5.0E-07 [b]	--
Benz[a]anthracene	56-55-3	1.6E-06	2.1E-04	7.5E-03 [b]	1.4E-06	0.015	9.3E-05 [b]	4.6E-07	7.8E-03	5.9E-05 [b]	7.8E-06	[9]	--	1.5E-06	[10]	--	4.6E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	1.1E-05	4.3E-05	0.25 [b]	9.5E-06	3.0E-03	3.2E-03 [b]	3.1E-06	1.6E-03	2.0E-03 [b]	5.3E-05	2.0E-03	0.027 [b]	1.1E-05	8.8E-03	1.2E-03 [b]	3.1E-06	8.8E-03	3.5E-04 [b]	--
Benzo[b]fluoranthene	205-99-2	2.7E-06	5.3E-05	0.052 [b]	2.4E-06	3.8E-03	6.4E-04 [b]	8.0E-07	2.0E-03	4.0E-04 [b]	1.4E-05	[9]	--	2.7E-06	[10]	--	8.0E-07	[11]	--	--
Benzo[g,h,i]perylene	191-24-2	2.9E-06	4.7E-03	6.2E-04 [b]	2.6E-06	0.34	7.6E-06 [b]	8.5E-07	0.17	5.0E-06 [b]	1.4E-05	[9]	--	2.9E-06	[10]	--	8.5E-07	[11]	--	--
Benzo[j]fluoranthene	205-82-3	3.0E-06	1.4E-04	0.021 [b]	2.7E-06	0.010	2.7E-04 [b]	8.8E-07	5.2E-03	1.7E-04 [b]	1.5E-05	[9]	--	3.0E-06	[10]	--	8.8E-07	[11]	--	--
Benzo[k]fluoranthene	207-08-9	1.0E-06	1.4E-03	7.1E-04 [b]	8.9E-07	0.10	8.9E-06 [b]	2.9E-07	0.052	5.6E-06 [b]	5.0E-06	[9]	--	9.8E-07	[10]	--	2.9E-07	[11]	--	--
Chrysene	218-01-9	1.5E-06	4.3E-04	3.5E-03 [b]	1.4E-06	0.030	4.5E-05 [b]	4.4E-07	0.016	2.8E-05 [b]	7.6E-06	[9]	--	1.5E-06	[10]	--	4.4E-07	[11]	--	--
Fluoranthene	206-44-0	3.2E-05	5.3E-04	0.061 [b]	2.9E-05	0.038	7.6E-04 [b]	9.4E-06	0.020	4.7E-04 [b]	1.6E-04	[9]	--	3.2E-05	[10]	--	9.4E-06	[11]	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	2.0E-06	6.1E-04	3.2E-03 [b]	1.8E-06	0.043	4.1E-05 [b]	5.7E-07	0.022	2.6E-05 [b]	9.8E-06	[9]	--	1.9E-06	[10]	--	5.7E-07	[11]	--	--
Naphthalene	91-20-3	4.8E-04	0.029	0.017 [b]	4.3E-04	0.35	1.2E-03 [b]	1.4E-04	0.76	1.8E-04 [b]	2.4E-03	3.70	6.4E-04 [b]	4.7E-04	16.0	2.9E-05 [b]	1.4E-04	16.0	8.8E-06 [b]	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	1.8E-12	1.0E-09	1.8E-03 [b]	1.6E-12	4.2E-08	3.9E-05 [b]	5.4E-13	9.0E-08	6.0E-06 [b]	9.1E-12	1.3E-07	7.0E-05 [b]	1.8E-12	2.6E-05	6.9E-08 [b]	5.4E-13	2.6E-05	2.1E-08 [b]	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	2.6E-12	1.0E-09	2.6E-03 [b]	2.3E-12	4.2E-08	5.4E-05 [b]	7.5E-13	9.0E-08	8.3E-06 [b]	1.3E-11	1.3E-07	9.8E-05 [b]	2.5E-12	2.6E-05	9.7E-08 [b]	7.5E-13	2.6E-05	2.9E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	1.7E-12	1.0E-08	1.7E-04 [b]	1.5E-12	4.2E-07	3.6E-06 [b]	4.9E-13	9.0E-07	5.4E-07 [b]	8.3E-12	1.3E-06	6.4E-06 [b]	1.6E-12	2.6E-04	6.3E-09 [b]	4.9E-13	2.6E-04	1.9E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	4.0E-12	1.0E-08	4.0E-04 [b]	3.6E-12	4.2E-07	8.6E-06 [b]	1.2E-12	9.0E-07	1.3E-06 [b]	2.0E-11	1.3E-06	1.5E-05 [b]	4.0E-12	2.6E-04	1.5E-08 [b]	1.2E-12	2.6E-04	4.5E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	4.3E-12	1.0E-08	4.3E-04 [b]	3.8E-12	4.2E-07	9.0E-06 [b]	1.2E-12	9.0E-07	1.4E-06 [b]	2.1E-11	1.3E-06	1.6E-05 [b]	4.2E-12	2.6E-04	1.6E-08 [b]	1.2E-12	2.6E-04	4.8E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD	35822-46-9	1.9E-11	1.0E-07	1.9E-04 [b]	1.7E-11	4.2E-06	4.0E-06 [b]	5.5E-12	9.0E-06	6.1E-07 [b]	9.3E-11	1.3E-05	7.2E-06 [b]	1.8E-11	2.6E-03	7.1E-09 [b]	5.5E-12	2.6E-03	2.1E-09 [b]	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	4.7E-11	3.4E-06	1.4E-05 [b]	4.2E-11	1.4E-04	3.0E-07 [b]	1.4E-11	3.0E-04	4.6E-08 [b]	2.4E-10	4.2E-04	5.6E-07 [b]	4.7E-11	0.085	5.5E-10 [b]	1.4E-11	0.085	1.6E-10 [b]	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	1.5E-11	1.0E-08	1.5E-03 [b]	1.4E-11	4.2E-07	3.3E-05 [b]	4.5E-12	9.0E-07	5.0E-06 [b]	7.7E-11	1.3E-06	5.9E-05 [b]	1.5E-11	2.6E-04	5.9E-08 [b]	4.5E-12	2.6E-04	1.7E-08 [b]	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	7.7E-12	3.4E-08	2.3E-04 [b]	6.9E-12	1.4E-06	4.9E-06 [b]	2.2E-12	3.0E-06	7.5E-07 [b]	3.8E-11	4.2E-06	9.1E-06 [b]	7.6E-12	8.5E-04	8.9E-09 [b]	2.2E-12	8.5E-04	2.6E-09 [b]	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	1.2E-11	3.4E-09	3.5E-03 [b]	1.0E-11	1.4E-07	7.5E-05 [b]	3.4E-12	3.0E-07	1.1E-05 [b]	5.8E-11	4.2E-07	1.4E-04 [b]	1.2E-11	8.5E-05	1.4E-07 [b]	3.4E-12	8.5E-05	4.0E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	6.9E-12	1.0E-08	6.9E-04 [b]	6.1E-12	4.2E-07	1.5E-05 [b]	2.0E-12	9.0E-07	2.2E-06 [b]	3.4E-11	1.3E-06	2.6E-05 [b]	6.7E-12	2.6E-04	2.6E-08 [b]	2.0E-12	2.6E-04	7.7E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	6.1E-12	1.0E-08	6.1E-04 [b]	5.4E-12	4.2E-07	1.3E-05 [b]	1.8E-12	9.0E-07	2.0E-06 [b]	3.0E-11	1.3E-06	2.3E-05 [b]	6.0E-12	2.6E-04	2.3E-08 [b]	1.8E-12	2.6E-04	6.8E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	1.3E-12	1.0E-08	1.3E-04 [b]	1.1E-12	4.2E-07	2.7E-06 [b]	3.8E-13	9.0E-07	4.2E-07 [b]	6.4E-12	1.3E-06	4.9E-06 [b]	1.3E-12	2.6E-04	4.9E-09 [b]	3.8E-13	2.6E-04	1.4E-09 [b]	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	5.1E-12	1.0E-08	5.1E-04 [b]	4.6E-12	4.2E-07	1.1E-05 [b]	1.5E-12	9.0E-07	1.7E-06 [b]	2.5E-11	1.3E-06	2.0E-05 [b]	5.0E-12	2.6E-04	1.9E-08 [b]	1.5E-12	2.6E-04	5.8E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	1.1E-11	1.0E-07	1.1E-04 [b]	9.8E-12	4.2E-06	2.3E-06 [b]	3.2E-12	9.0E-06	3.6E-07 [b]	5.5E-11	1.3E-05	4.2E-06 [b]	1.1E-11	2.6E-03	4.2E-09 [b]	3.2E-12	2.6E-03	1.2E-09 [b]	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	1.5E-12	1.0E-07	1.5E-05 [b]	1.4E-12	4.2E-06	3.3E-07 [b]	4.5E-13	9.0E-06	5.0E-08 [b]	7.6E-12	1.3E-05	5.9E-07 [b]	1.5E-12	2.6E-03	5.8E-10 [b]	4.5E-13	2.6E-03	1.7E-10 [b]	--
Octachlorodibenzofuran (OCDF)	39001-02-0	9.6E-12	3.4E-06	2.8E-06 [b]	8.6E-12	1.4E-04	6.1E-08 [b]	2.8E-12	3.0E-04	9.4E-09 [b]	4.8E-11	4.2E-04	1.1E-07 [b]	9.5E-12	0.085	1.1E-10 [b]	2.8E-12	0.085	3.3E-11 [b]	--
Total PCBs	1336-36-3	1.5E-08	5.3E-04	2.9E-05 [b]	1.4E-08	9.2E-03	1.5E-06 [b]	4.4E-09	0.020	2.2E-07 [b]	7.5E-08	[9]	--	1.5E-08	[10]	--	4.4E-09	[11]	--	--
2,4-Dinitrotoluene	121-14-2	1.8E-06	0.011	1.7E-04 [b]	1.6E-06	0.13	1.2E-05 [b]	5.3E-07	0.29	1.8E-06 [b]	9.0E-06	[9]	--	1.8E-06	[10]	--	5.3E-07	[11]	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	9.0E-08	0.080	1.1E-06 [b]	8.0E-08	5.00	1.6E-08 [b]	2.6E-08	11.0	2.4E-09 [b]	4.4E-07	[9]	--	8.8E-08	[10]	--	2.6E-08	[11]	--	--
Hydrogen cyanide	74-90-8	4.0E-05	[6]	--	3.5E-05	[7]	--	1.2E-05	[8]	--	2.0E-04	0.80	2.5E-04 [b]	3.9E-05	3.50	1.1E-05 [b]	1.2E-05	3.50	3.3E-06 [b]	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	5.6E-05	0.038	1.5E-03 [b]	5.0E-05	0.46	1.1E-04 [b]	1.6E-05	1.00	1.6E-05 [b]	2.8E-04	7.00	4.0E-05 [b]	5.5E-05	31.0	1.8E-06 [b]	1.6E-05	31.0	5.3E-07 [b]	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	5.4E-04	0.091	5.9E-03 [b]	4.8E-04	1.10	4.4E-04 [b]	1.6E-04	2.40	6.5E-05 [b]	2.7E-03	60.0	4.4E-05 [b]	5.3E-04	260	2.0E-06 [b]	1.6E-04	260	6.0E-07 [b]	--
2,4,6-Trichlorophenol	88-06-2	3.9E-07	0.050	7.7E-06 [b]	3.4E-07	0.60	5.7E-07 [b]	1.1E-07	1.30	8.7E-08 [b]	1.9E-06	[9]	--	3.8E-07	[10]	--	1.1E-07	[11]	--	--
Pentachlorophenol	87-86-5	4.1E-07	0.20	2.1E-06 [b]	3.7E-07	2.40	1.5E-07 [b]	1.2E-07	5.10	2.4E-08 [b]	2.0E-06	[9]	--	4.1E-07	[10]	--	1.2E-07	[11]	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	4.7E-05	3.80	1.2E-05 [b]	4.2E-05	46.0	9.2E-07 [b]	1.4E-05	100.0	1.4E-07 [b]	2.4E-04	41.0	5.7E-06 [b]	4.7E-05	180	2.6E-07 [b]	1.4E-05	180	7.7E-08 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
HBLR_MC																				
Cumulative TEU Risk		--	--	**0.12**	--	--	**3.5E-03**	--	--	**7.4E-04**	--	--	**0.056**	--	--	**1.7E-03**	--	--	**3.3E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**0.31**			**0.25**			**0.057**			**1.22**			**0.29**			**0.057**			--
Antimony and compounds	7440-36-0	5.5E-07	[6]	--	4.4E-07	[7]	--	1.0E-07	[8]	--	2.1E-06	0.30	7.2E-06 [b]	5.2E-07	1.30	4.0E-07 [b]	1.0E-07	1.30	7.7E-08 [b]	--
Arsenic and compounds	7440-38-2	1.5E-06	2.4E-05	0.063 [b]	1.2E-06	6.2E-04	2.0E-03 [b]	2.7E-07	1.3E-03	2.1E-04 [b]	5.9E-06	1.7E-04	0.035 [b]	1.4E-06	2.4E-03	5.9E-04 [b]	2.7E-07	2.4E-03	1.1E-04 [b]	--
Beryllium and compounds	7440-41-7	2.4E-08	4.2E-04	5.6E-05 [b]	1.9E-08	5.0E-03	3.8E-06 [b]	4.3E-09	0.011	3.9E-07 [b]	9.3E-08	7.0E-03	1.3E-05 [b]	2.2E-08	0.031	7.3E-07 [b]	4.3E-09	0.031	1.4E-07 [b]	--
Cadmium and compounds	7440-43-9	8.8E-07	5.6E-04	1.6E-03 [b]	7.1E-07	6.7E-03	1.1E-04 [b]	1.6E-07	0.014	1.1E-05 [b]	3.4E-06	5.0E-03	6.9E-04 [b]	8.3E-07	0.037	2.2E-05 [b]	1.6E-07	0.037	4.3E-06 [b]	--
Chromium VI	18540-29-9	1.2E-06	3.1E-05	0.039 [b]	9.9E-07	1.0E-03	9.9E-04 [b]	2.2E-07	5.2E-04	4.3E-04 [b]	4.8E-06	0.083	5.8E-05 [b]	1.2E-06	0.88	1.3E-06 [b]	2.2E-07	0.88	2.5E-07 [b]	--
Cobalt and compounds	7440-48-4	2.9E-07	[6]	--	2.4E-07	[7]	--	5.4E-08	[8]	--	1.2E-06	0.10	1.2E-05 [b]	2.8E-07	0.44	6.3E-07 [b]	5.4E-08	0.44	1.2E-07 [b]	--
Copper and compounds	7440-50-8	1.4E-05	[6]	--	1.2E-05	[7]	--	2.7E-06	[8]	--	5.7E-05	[9]	--	1.4E-05	[10]	--	2.7E-06	[11]	--	--
Lead and compounds	7439-92-1	5.4E-06	[6]	--	4.4E-06	[7]	--	1.0E-06	[8]	--	2.1E-05	0.15	1.4E-04 [b]	5.2E-06	0.66	7.8E-06 [b]	1.0E-06	0.66	1.5E-06 [b]	--
Manganese and compounds	7439-96-5	3.2E-04	[6]	--	2.6E-04	[7]	--	5.9E-05	[8]	--	1.3E-03	0.090	0.014 [b]	3.1E-04	0.40	7.7E-04 [b]	5.9E-05	0.40	1.5E-04 [b]	--
Mercury and compounds	7439-97-6	3.1E-07	[6]	--	2.5E-07	[7]	--	5.7E-08	[8]	--	1.2E-06	0.077	1.6E-05 [b]	2.9E-07	0.63	4.7E-07 [b]	5.7E-08	0.63	9.0E-08 [b]	--
Nickel and compounds	365	2.3E-06	3.8E-03	6.1E-04 [b]	1.9E-06	0.046	4.1E-05 [b]	4.2E-07	0.10	4.2E-06 [b]	9.1E-06	0.014	6.5E-04 [b]	2.2E-06	0.062	3.5E-05 [b]	4.2E-07	0.062	6.8E-06 [b]	--
Selenium and compounds	7782-49-2	1.3E-07	[6]	--	1.0E-07	[7]	--	2.3E-08	[8]	--	5.0E-07	[9]	--	1.2E-07	[10]	--	2.3E-08	[11]	--	--
Vanadium (fume or dust)	7440-62-2	1.7E-07	[6]	--	1.4E-07	[7]	--	3.2E-08	[8]	--	6.8E-07	0.10	6.8E-06 [b]	1.6E-07	0.44	3.7E-07 [b]	3.2E-08	0.44	7.2E-08 [b]	--
Acetaldehyde	75-07-0	5.0E-05	0.45	1.1E-04 [b]	4.0E-05	5.50	7.3E-06 [b]	9.1E-06	12.0	7.6E-07 [b]	2.0E-04	140	1.4E-06 [b]	4.7E-05	620	7.6E-08 [b]	9.1E-06	620	1.5E-08 [b]	--
Acetone	67-64-1	9.3E-05	[6]	--	7.5E-05	[7]	--	1.7E-05	[8]	--	3.6E-04	31,000	1.2E-08 [b]	8.8E-05	140,000	6.3E-10 [b]	1.7E-05	140,000	1.2E-10 [b]	--
Acrolein	107-02-8	4.6E-05	[6]	--	3.7E-05	[7]	--	8.4E-06	[8]	--	1.8E-04	0.35	5.1E-04 [b]	4.3E-05	1.50	2.9E-05 [b]	8.4E-06	1.50	5.6E-06 [b]	--
Benzene	71-43-2	1.7E-04	0.13	1.3E-03 [b]	1.4E-04	1.50	9.3E-05 [b]	3.2E-05	3.30	9.5E-06 [b]	6.8E-04	3.00	2.3E-04 [b]	1.6E-04	13.0	1.3E-05 [b]	3.2E-05	13.0	2.4E-06 [b]	--
Carbon tetrachloride	56-23-5	1.7E-06	0.17	1.0E-05 [b]	1.4E-06	2.00	7.0E-07 [b]	3.2E-07	4.30	7.4E-08 [b]	6.8E-06	100.0	6.8E-08 [b]	1.6E-06	440	3.7E-09 [b]	3.2E-07	440	7.2E-10 [b]	--
Chlorine	7782-50-5	1.4E-04	[6]	--	1.1E-04	[7]	--	2.5E-05	[8]	--	5.5E-04	0.15	3.6E-03 [b]	1.3E-04	0.66	2.0E-04 [b]	2.5E-05	0.66	3.8E-05 [b]	--
Chlorobenzene	108-90-7	2.9E-06	[6]	--	2.4E-06	[7]	--	5.3E-07	[8]	--	1.1E-05	50.0	2.3E-07 [b]	2.8E-06	220	1.3E-08 [b]	5.3E-07	220	2.4E-09 [b]	--
Chloroform	67-66-3	3.5E-06	[6]	--	2.9E-06	[7]	--	6.5E-07	[8]	--	1.4E-05	300	4.6E-08 [b]	3.3E-06	1,300	2.6E-09 [b]	6.5E-07	1,300	5.0E-10 [b]	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	3.0E-06	[6]	--	2.4E-06	[7]	--	5.4E-07	[8]	--	1.2E-05	4.00	2.9E-06 [b]	2.8E-06	18.0	1.6E-07 [b]	5.4E-07	18.0	3.0E-08 [b]	--
Ethyl benzene	100-41-4	2.1E-06	0.40	5.4E-06 [b]	1.7E-06	4.80	3.6E-07 [b]	3.9E-07	10.0	3.9E-08 [b]	8.4E-06	260	3.2E-08 [b]	2.0E-06	1,100	1.8E-09 [b]	3.9E-07	1,100	3.6E-10 [b]	--
Formaldehyde	50-00-0	1.8E-04	0.17	1.1E-03 [b]	1.5E-04	2.00	7.5E-05 [b]	3.4E-05	4.30	7.9E-06 [b]	7.2E-04	9.00	8.0E-05 [b]	1.7E-04	40.0	4.4E-06 [b]	3.4E-05	40.0	8.4E-07 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	7.8E-05	[6]	--	6.3E-05	[7]	--	1.4E-05	[8]	--	3.1E-04	3,000	1.0E-07 [b]	7.4E-05	13,000	5.7E-09 [b]	1.4E-05	13,000	1.1E-09 [b]	--
Isopropylbenzene (Cumene)	98-82-8	3.1E-06	[6]	--	2.5E-06	[7]	--	5.7E-07	[8]	--	1.2E-05	400	3.1E-08 [b]	2.9E-06	1,800	1.6E-09 [b]	5.7E-07	1,800	3.2E-10 [b]	--
Hexane	110-54-3	5.1E-05	[6]	--	4.1E-05	[7]	--	9.3E-06	[8]	--	2.0E-04	700	2.8E-07 [b]	4.8E-05	3,100	1.5E-08 [b]	9.3E-06	3,100	3.0E-09 [b]	--
Isopropyl alcohol	67-63-0	7.9E-04	[6]	--	6.4E-04	[7]	--	1.5E-04	[8]	--	3.1E-03	200	1.6E-05 [b]	7.5E-04	880	8.6E-07 [b]	1.5E-04	880	1.7E-07 [b]	--
Methanol	67-56-1	1.3E-04	[6]	--	1.0E-04	[7]	--	2.4E-05	[8]	--	5.0E-04	4,000	1.3E-07 [b]	1.2E-04	18,000	6.8E-09 [b]	2.4E-05	18,000	1.3E-09 [b]	--
Bromomethane (Methyl bromide)	74-83-9	2.0E-06	[6]	--	1.6E-06	[7]	--	3.6E-07	[8]	--	7.8E-06	5.00	1.6E-06 [b]	1.9E-06	22.0	8.6E-08 [b]	3.6E-07	22.0	1.7E-08 [b]	--
Chloromethane (Methyl chloride)	74-87-3	7.6E-06	[6]	--	6.2E-06	[7]	--	1.4E-06	[8]	--	3.0E-05	90.0	3.3E-07 [b]	7.2E-06	400	1.8E-08 [b]	1.4E-06	400	3.5E-09 [b]	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	1.0E-05	[6]	--	8.2E-06	[7]	--	1.9E-06	[8]	--	4.0E-05	5,000	8.0E-09 [b]	9.6E-06	22,000	4.4E-10 [b]	1.9E-06	22,000	8.4E-11 [b]	--
Dichloromethane (Methylene chloride)	75-09-2	7.0E-05	59.0	1.2E-06 [b]	5.7E-05	1,200	4.7E-08 [b]	1.3E-05	620	2.1E-08 [b]	2.7E-04	600	4.6E-07 [b]	6.6E-05	2,600	2.6E-08 [b]	1.3E-05	2,600	4.9E-09 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.2E-06	[6]	--	9.9E-07	[7]	--	2.2E-07	[8]	--	4.8E-06	5,000	9.6E-10 [b]	1.2E-06	22,000	5.3E-11 [b]	2.2E-07	22,000	1.0E-11 [b]	--
Phenol	108-95-2	2.8E-05	[6]	--	2.3E-05	[7]	--	5.1E-06	[8]	--	1.1E-04	200	5.5E-07 [b]	2.7E-05	880	3.0E-08 [b]	5.1E-06	880	5.8E-09 [b]	--
Propionaldehyde	123-38-6	5.5E-05	[6]	--	4.4E-05	[7]	--	1.0E-05	[8]	--	2.1E-04	8.00	2.7E-05 [b]	5.2E-05	35.0	1.5E-06 [b]	1.0E-05	35.0	2.9E-07 [b]	--
Styrene	100-42-5	8.2E-05	[6]	--	6.7E-05	[7]	--	1.5E-05	[8]	--	3.2E-04	1,000	3.2E-07 [b]	7.8E-05	4,400	1.8E-08 [b]	1.5E-05	4,400	3.4E-09 [b]	--
Toluene	108-88-3	2.0E-06	[6]	--	1.6E-06	[7]	--	3.7E-07	[8]	--	7.9E-06	5,000	1.6E-09 [b]	1.9E-06	22,000	8.6E-11 [b]	3.7E-07	22,000	1.7E-11 [b]	--
Xylene (mixture)	1330-20-7	9.2E-07	[6]	--	7.4E-07	[7]	--	1.7E-07	[8]	--	3.6E-06	220	1.6E-08 [b]	8.7E-07	970	9.0E-10 [b]	1.7E-07	970	1.7E-10 [b]	--
Vinyl Chloride	75-01-4	3.2E-06	0.11	2.9E-05 [b]	2.6E-06	2.70	9.7E-07 [b]	5.9E-07	0.22	2.7E-06 [b]	1.3E-05	100.0	1.3E-07 [b]	3.1E-06	440	7.0E-09 [b]	5.9E-07	440	1.3E-09 [b]	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	3.5E-06	0.20	1.7E-05 [b]	2.8E-06	2.90	9.8E-07 [b]	6.4E-07	3.50	1.8E-07 [b]	1.4E-05	2.10	6.5E-06 [b]	3.3E-06	9.20	3.6E-07 [b]	6.4E-07	9.20	7.0E-08 [b]	--
Hydrogen fluoride	7664-39-3	1.6E-05	[6]	--	1.3E-05	[7]	--	2.9E-06	[8]	--	6.2E-05	2.10	3.0E-05 [b]	1.5E-05	19.0	7.9E-07 [b]	2.9E-06	19.0	1.5E-07 [b]	--
Hydrochloric acid	7647-01-0	7.7E-04	[6]	--	6.2E-04	[7]	--	1.4E-04	[8]	--	3.0E-03	20.0	1.5E-04 [b]	7.3E-04	88.0	8.3E-06 [b]	1.4E-04	88.0	1.6E-06 [b]	--
Benz[a]anthracene	56-55-3	1.4E-08	2.1E-04	6.8E-05 [b]	1.2E-08	0.015	7.7E-07 [b]	2.6E-09	7.8E-03	3.4E-07 [b]	5.6E-08	[9]	--	1.4E-08	[10]	--	2.6E-09	[11]	--	--
Benzo[a]pyrene	50-32-8	3.9E-07	4.3E-05	9.1E-03 [b]	3.2E-07	3.0E-03	1.1E-04 [b]	7.1E-08	1.6E-03	4.5E-05 [b]	1.5E-06	2.0E-03	7.7E-04 [b]	3.7E-07	8.8E-03	4.2E-05 [b]	7.1E-08	8.8E-03	8.1E-06 [b]	--
Benzo[b]fluoranthene	205-99-2	2.5E-08	5.3E-05	4.7E-04 [b]	2.0E-08	3.8E-03	5.3E-06 [b]	4.6E-09	2.0E-03	2.3E-06 [b]	9.8E-08	[9]	--	2.4E-08	[10]	--	4.6E-09	[11]	--	--
Benzo[g,h,i]perylene	191-24-2	2.7E-08	4.7E-03	5.6E-06 [b]	2.2E-08	0.34	6.3E-08 [b]	4.9E-09	0.17	2.9E-08 [b]	1.0E-07	[9]	--	2.5E-08	[10]	--	4.9E-09	[11]	--	--
Benzo[j]fluoranthene	205-82-3	2.7E-08	1.4E-04	2.0E-04 [b]	2.2E-08	0.010	2.2E-06 [b]	5.0E-09	5.2E-03	9.6E-07 [b]	1.1E-07	[9]	--	2.6E-08	[10]	--	5.0E-09	[11]	--	--
Benzo[k]fluoranthene	207-08-9	9.1E-09	1.4E-03	6.5E-06 [b]	7.4E-09	0.10	7.4E-08 [b]	1.7E-09	0.052	3.2E-08 [b]	3.6E-08	[9]	--	8.6E-09	[10]	--	1.7E-09	[11]	--	--
Chrysene	218-01-9	1.4E-08	4.3E-04	3.2E-05 [b]	1.1E-08	0.030	3.8E-07 [b]	2.5E-09	0.016	1.6E-07 [b]	5.5E-08	[9]	--	1.3E-08	[10]	--	2.5E-09	[11]	--	--
Fluoranthene	206-44-0	2.9E-07	5.3E-04	5.5E-04 [b]	2.4E-07	0.038	6.3E-06 [b]	5.4E-08	0.020	2.7E-06 [b]	1.2E-06	[9]	--	2.8E-07	[10]	--	5.4E-08	[11]	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	1.8E-08	6.1E-04	2.9E-05 [b]	1.5E-08	0.043	3.4E-07 [b]	3.3E-09	0.022	1.5E-07 [b]	7.0E-08	[9]	--	1.7E-08	[10]	--	3.3E-09	[11]	--	--
Naphthalene	91-20-3	1.7E-05	0.029	6.0E-04 [b]	1.4E-05	0.35	4.1E-05 [b]	3.2E-06	0.76	4.2E-06 [b]	6.9E-05	3.70	1.9E-05 [b]	1.7E-05	16.0	1.0E-06 [b]	3.2E-06	16.0	2.0E-07 [b]	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	1.7E-13	1.0E-09	1.7E-04 [b]	1.4E-13	4.2E-08	3.2E-06 [b]	3.1E-14	9.0E-08	3.4E-07 [b]	6.6E-13	1.3E-07	5.1E-06 [b]	1.6E-13	2.6E-05	6.1E-09 [b]	3.1E-14	2.6E-05	1.2E-09 [b]	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	2.3E-13	1.0E-09	2.3E-04 [b]	1.9E-13	4.2E-08	4.5E-06 [b]	4.3E-14	9.0E-08	4.8E-07 [b]	9.2E-13	1.3E-07	7.1E-06 [b]	2.2E-13	2.6E-05	8.5E-09 [b]	4.3E-14	2.6E-05	1.6E-09 [b]	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	1.5E-13	1.0E-08	1.5E-05 [b]	1.2E-13	4.2E-07	3.0E-07 [b]	2.8E-14	9.0E-07	3.1E-08 [b]	6.0E-13	1.3E-06	4.6E-07 [b]	1.4E-13	2.6E-04	5.6E-10 [b]	2.8E-14	2.6E-04	1.1E-10 [b]	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	3.7E-13	1.0E-08	3.7E-05 [b]	3.0E-13	4.2E-07	7.1E-07 [b]	6.7E-14	9.0E-07	7.5E-08 [b]	1.4E-12	1.3E-06	1.1E-06 [b]	3.5E-13	2.6E-04	1.3E-09 [b]	6.7E-14	2.6E-04	2.6E-10 [b]	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	3.9E-13	1.0E-08	3.9E-05 [b]	3.2E-13	4.2E-07	7.5E-07 [b]	7.1E-14	9.0E-07	7.9E-08 [b]	1.5E-12	1.3E-06	1.2E-06 [b]	3.7E-13	2.6E-04	1.4E-09 [b]	7.1E-14	2.6E-04	2.7E-10 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDI	35822-46-9	1.7E-12	1.0E-07	1.7E-05 [b]	1.4E-12	4.2E-06	3.3E-07 [b]	3.1E-13	9.0E-06	3.5E-08 [b]	6.7E-12	1.3E-05	5.2E-07 [b]	1.6E-12	2.6E-03	6.3E-10 [b]	3.1E-13	2.6E-03	1.2E-10 [b]	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	4.3E-12	3.4E-06	1.3E-06 [b]	3.5E-12	1.4E-04	2.5E-08 [b]	7.9E-13	3.0E-04	2.6E-09 [b]	1.7E-11	4.2E-04	4.0E-08 [b]	4.1E-12	0.085	4.8E-11 [b]	7.9E-13	0.085	9.3E-12 [b]	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	1.4E-12	1.0E-08	1.4E-04 [b]	1.1E-12	4.2E-07	2.7E-06 [b]	2.6E-13	9.0E-07	2.9E-07 [b]	5.5E-12	1.3E-06	4.3E-06 [b]	1.3E-12	2.6E-04	5.2E-09 [b]	2.6E-13	2.6E-04	9.9E-10 [b]	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	7.0E-13	3.4E-08	2.1E-05 [b]	5.7E-13	1.4E-06	4.1E-07 [b]	1.3E-13	3.0E-06	4.3E-08 [b]	2.8E-12	4.2E-06	6.6E-07 [b]	6.6E-13	8.5E-04	7.8E-10 [b]	1.3E-13	8.5E-04	1.5E-10 [b]	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	1.1E-12	3.4E-09	3.1E-04 [b]	8.7E-13	1.4E-07	6.2E-06 [b]	2.0E-13	3.0E-07	6.5E-07 [b]	4.2E-12	4.2E-07	1.0E-05 [b]	1.0E-12	8.5E-05	1.2E-08 [b]	2.0E-13	8.5E-05	2.3E-09 [b]	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	6.3E-13	1.0E-08	6.3E-05 [b]	5.1E-13	4.2E-07	1.2E-06 [b]	1.1E-13	9.0E-07	1.3E-07 [b]	2.5E-12	1.3E-06	1.9E-06 [b]	5.9E-13	2.6E-04	2.3E-09 [b]	1.1E-13	2.6E-04	4.4E-10 [b]	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	5.5E-13	1.0E-08	5.5E-05 [b]	4.5E-13	4.2E-07	1.1E-06 [b]	1.0E-13	9.0E-07	1.1E-07 [b]	2.2E-12	1.3E-06	1.7E-06 [b]	5.3E-13	2.6E-04	2.0E-09 [b]	1.0E-13	2.6E-04	3.9E-10 [b]	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	1.2E-13	1.0E-08	1.2E-05 [b]	9.5E-14	4.2E-07	2.3E-07 [b]	2.1E-14	9.0E-07	2.4E-08 [b]	4.6E-13	1.3E-06	3.5E-07 [b]	1.1E-13	2.6E-04	4.3E-10 [b]	2.1E-14	2.6E-04	8.2E-11 [b]	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	4.7E-13	1.0E-08	4.7E-05 [b]	3.8E-13	4.2E-07	9.0E-07 [b]	8.6E-14	9.0E-07	9.5E-08 [b]	1.8E-12	1.3E-06	1.4E-06 [b]	4.4E-13	2.6E-04	1.7E-09 [b]	8.6E-14	2.6E-04	3.3E-10 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	1.0E-12	1.0E-07	1.0E-05 [b]	8.1E-13	4.2E-06	1.9E-07 [b]	1.8E-13	9.0E-06	2.0E-08 [b]	3.9E-12	1.3E-05	3.0E-07 [b]	9.5E-13	2.6E-03	3.7E-10 [b]	1.8E-13	2.6E-03	7.1E-11 [b]	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	1.4E-13	1.0E-07	1.4E-06 [b]	1.1E-13	4.2E-06	2.7E-08 [b]	2.6E-14	9.0E-06	2.9E-09 [b]	5.5E-13	1.3E-05	4.2E-08 [b]	1.3E-13	2.6E-03	5.1E-11 [b]	2.6E-14	2.6E-03	9.9E-12 [b]	--
Octachlorodibenzofuran (OCDF)	39001-02-0	8.8E-13	3.4E-06	2.6E-07 [b]	7.1E-13	1.4E-04	5.1E-09 [b]	1.6E-13	3.0E-04	5.4E-10 [b]	3.4E-12	4.2E-04	8.2E-09 [b]	8.3E-13	0.085	9.8E-12 [b]	1.6E-13	0.085	1.9E-12 [b]	--
Total PCBs	1336-36-3	1.4E-09	5.3E-04	2.6E-06 [b]	1.1E-09	9.2E-03	1.2E-07 [b]	2.5E-10	0.020	1.3E-08 [b]	5.4E-09	[9]	--	1.3E-09	[10]	--	2.5E-10	[11]	--	--
2,4-Dinitrotoluene	121-14-2	1.7E-07	0.011	1.5E-05 [b]	1.3E-07	0.13	1.0E-06 [b]	3.0E-08	0.29	1.0E-07 [b]	6.5E-07	[9]	--	1.6E-07	[10]	--	3.0E-08	[11]	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	8.2E-09	0.080	1.0E-07 [b]	6.6E-09	5.00	1.3E-09 [b]	1.5E-09	11.0	1.4E-10 [b]	3.2E-08	[9]	--	7.7E-09	[10]	--	1.5E-09	[11]	--	--
Hydrogen cyanide	74-90-8	3.6E-06	[6]	--	2.9E-06	[7]	--	6.6E-07	[8]	--	1.4E-05	0.80	1.8E-05 [b]	3.4E-06	3.50	9.8E-07 [b]	6.6E-07	3.50	1.9E-07 [b]	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	5.1E-06	0.038	1.3E-04 [b]	4.2E-06	0.46	9.1E-06 [b]	9.4E-07	1.00	9.4E-07 [b]	2.0E-05	7.00	2.9E-06 [b]	4.9E-06	31.0	1.6E-07 [b]	9.4E-07	31.0	3.0E-08 [b]	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	4.9E-05	0.091	5.4E-04 [b]	4.0E-05	1.10	3.6E-05 [b]	9.0E-06	2.40	3.7E-06 [b]	1.9E-04	60.0	3.2E-06 [b]	4.6E-05	260	1.8E-07 [b]	9.0E-06	260	3.5E-08 [b]	--
2,4,6-Trichlorophenol	88-06-2	3.5E-08	0.050	7.0E-07 [b]	2.9E-08	0.60	4.8E-08 [b]	6.4E-09	1.30	4.9E-09 [b]	1.4E-07	[9]	--	3.3E-08	[10]	--	6.4E-09	[11]	--	--
Pentachlorophenol	87-86-5	3.8E-08	0.20	1.9E-07 [b]	3.1E-08	2.40	1.3E-08 [b]	6.9E-09	5.10	1.3E-09 [b]	1.5E-07	[9]	--	3.6E-08	[10]	--	6.9E-09	[11]	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	4.3E-06	3.80	1.1E-06 [b]	3.5E-06	46.0	7.6E-08 [b]	7.9E-07	100.0	7.9E-09 [b]	1.7E-05	41.0	4.1E-07 [b]	4.1E-06	180	2.3E-08 [b]	7.9E-07	180	4.4E-09 [b]	--
KILN1_1																				
Cumulative TEU Risk		--	--	**0.83**	--	--	**0.036**	--	--	**2.9E-04**	--	--	**3.1E-03**	--	--	**2.2E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**65.9**			**34.7**			**0.61**			**9.23**			**28.3**			**0.61**			--
Acetaldehyde	75-07-0	0.33	0.45	0.74 [b]	0.17	5.50	0.032 [b]	3.1E-03	12.0	2.5E-04 [b]	0.046	140	3.3E-04 [b]	0.14	620	2.3E-04 [b]	3.1E-03	620	4.9E-06 [b]	--
Acrolein	107-02-8	6.0E-03	[6]	--	3.1E-03	[7]	--	5.5E-05	[8]	--	8.3E-04	0.35	2.4E-03 [b]	2.6E-03	1.50	1.7E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.015	0.17	0.089 [b]	8.0E-03	2.00	4.0E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.1E-03	9.00	2.4E-04 [b]	6.5E-03	40.0	1.6E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.51	[6]	--	0.27	[7]	--	4.7E-03	[8]	--	0.071	4,000	1.8E-05 [b]	0.22	18,000	1.2E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	5.8E-03	[6]	--	3.0E-03	[7]	--	5.3E-05	[8]	--	8.1E-04	8.00	1.0E-04 [b]	2.5E-03	35.0	7.1E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--
KILN1_2																				
Cumulative TEU Risk		--	--	**0.85**	--	--	**0.037**	--	--	**2.9E-04**	--	--	**3.0E-03**	--	--	**2.2E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**67.7**			**35.5**			**0.61**			**8.94**			**28.8**			**0.61**			--
Acetaldehyde	75-07-0	0.34	0.45	0.76 [b]	0.18	5.50	0.032 [b]	3.1E-03	12.0	2.6E-04 [b]	0.045	140	3.2E-04 [b]	0.15	620	2.3E-04 [b]	3.1E-03	620	4.9E-06 [b]	--
Acrolein	107-02-8	6.1E-03	[6]	--	3.2E-03	[7]	--	5.5E-05	[8]	--	8.1E-04	0.35	2.3E-03 [b]	2.6E-03	1.50	1.7E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.092 [b]	8.2E-03	2.00	4.1E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.1E-03	9.00	2.3E-04 [b]	6.6E-03	40.0	1.7E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.52	[6]	--	0.27	[7]	--	4.7E-03	[8]	--	0.069	4,000	1.7E-05 [b]	0.22	18,000	1.2E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	5.9E-03	[6]	--	3.1E-03	[7]	--	5.3E-05	[8]	--	7.8E-04	8.00	9.8E-05 [b]	2.5E-03	35.0	7.2E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--
KILN1_3																				
Cumulative TEU Risk		--	--	**0.87**	--	--	**0.037**	--	--	**2.9E-04**	--	--	**2.9E-03**	--	--	**2.3E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**69.3**			**36.3**			**0.61**			**8.67**			**29.3**			**0.61**			--
Acetaldehyde	75-07-0	0.35	0.45	0.78 [b]	0.18	5.50	0.033 [b]	3.1E-03	12.0	2.6E-04 [b]	0.044	140	3.1E-04 [b]	0.15	620	2.4E-04 [b]	3.1E-03	620	4.9E-06 [b]	--
Acrolein	107-02-8	6.3E-03	[6]	--	3.3E-03	[7]	--	5.5E-05	[8]	--	7.8E-04	0.35	2.2E-03 [b]	2.7E-03	1.50	1.8E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.094 [b]	8.4E-03	2.00	4.2E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.0E-03	9.00	2.2E-04 [b]	6.8E-03	40.0	1.7E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.53	[6]	--	0.28	[7]	--	4.7E-03	[8]	--	0.067	4,000	1.7E-05 [b]	0.23	18,000	1.3E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	6.1E-03	[6]	--	3.2E-03	[7]	--	5.3E-05	[8]	--	7.6E-04	8.00	9.5E-05 [b]	2.6E-03	35.0	7.3E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
KILN1_4																				
Cumulative TEU Risk		--	--	**0.89**	--	--	**0.038**	--	--	**2.9E-04**	--	--	**2.8E-03**	--	--	**2.3E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])			**71.0**			**37.2**			**0.61**			**8.41**			**29.9**			**0.61**		--
Acetaldehyde	75-07-0	0.36	0.45	0.80 [b]	0.19	5.50	0.034 [b]	3.1E-03	12.0	2.6E-04 [b]	0.042	140	3.0E-04 [b]	0.15	620	2.4E-04 [b]	3.1E-03	620	5.0E-06 [b]	--
Acrolein	107-02-8	6.4E-03	[6]	--	3.4E-03	[7]	--	5.5E-05	[8]	--	7.6E-04	0.35	2.2E-03 [b]	2.7E-03	1.50	1.8E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.096 [b]	8.6E-03	2.00	4.3E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	1.9E-03	9.00	2.2E-04 [b]	6.9E-03	40.0	1.7E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.55	[6]	--	0.29	[7]	--	4.7E-03	[8]	--	0.065	4,000	1.6E-05 [b]	0.23	18,000	1.3E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	6.2E-03	[6]	--	3.3E-03	[7]	--	5.3E-05	[8]	--	7.4E-04	8.00	9.2E-05 [b]	2.6E-03	35.0	7.5E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--
KILN2_1																				
Cumulative TEU Risk		--	--	**1.61**	--	--	**0.080**	--	--	**7.5E-04**	--	--	**6.8E-03**	--	--	**4.9E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**48.1**			**29.0**			**0.59**			**7.68**			**24.1**			**0.59**		--
Acetaldehyde	75-07-0	0.65	0.45	1.44 [b]	0.39	5.50	0.071 [b]	7.9E-03	12.0	6.6E-04 [b]	0.10	140	7.4E-04 [b]	0.32	620	5.2E-04 [b]	7.9E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.012	[6]	--	0.012	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.3E-03 [b]	5.8E-03	1.50	3.9E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.030	0.17	0.17 [b]	0.018	2.00	8.9E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	4.7E-03	9.00	5.2E-04 [b]	0.015	40.0	3.7E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.99	[6]	--	0.60	[7]	--	0.012	[8]	--	0.16	4,000	3.9E-05 [b]	0.49	18,000	2.7E-05 [b]	0.012	18,000	6.7E-07 [b]	--
Propionaldehyde	123-38-6	0.011	[6]	--	6.8E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.2E-04 [b]	5.6E-03	35.0	1.6E-04 [b]	1.4E-04	35.0	3.9E-06 [b]	--
KILN2_2																				
Cumulative TEU Risk		--	--	**1.64**	--	--	**0.082**	--	--	**7.5E-04**	--	--	**6.5E-03**	--	--	**5.1E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**48.9**			**30.0**			**0.59**			**7.36**			**24.7**			**0.59**		--
Acetaldehyde	75-07-0	0.66	0.45	1.46 [b]	0.40	5.50	0.073 [b]	8.0E-03	12.0	6.6E-04 [b]	0.099	140	7.1E-04 [b]	0.33	620	5.4E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.012	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.1E-03 [b]	6.0E-03	1.50	4.0E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.030	0.17	0.18 [b]	0.018	2.00	9.2E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	4.5E-03	9.00	5.0E-04 [b]	0.015	40.0	3.8E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	1.00	[6]	--	0.62	[7]	--	0.012	[8]	--	0.15	4,000	3.8E-05 [b]	0.51	18,000	2.8E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	0.011	[6]	--	7.0E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.1E-04 [b]	5.8E-03	35.0	1.6E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN2_3																				
Cumulative TEU Risk		--	--	**1.66**	--	--	**0.085**	--	--	**7.5E-04**	--	--	**6.3E-03**	--	--	**5.2E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**49.6**			**31.0**			**0.59**			**7.07**			**25.4**			**0.59**		--
Acetaldehyde	75-07-0	0.67	0.45	1.48 [b]	0.42	5.50	0.076 [b]	8.0E-03	12.0	6.7E-04 [b]	0.095	140	6.8E-04 [b]	0.34	620	5.5E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.012	[6]	--	7.5E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	0.35	4.9E-03 [b]	6.1E-03	1.50	4.1E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.030	0.17	0.18 [b]	0.019	2.00	9.5E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.3E-03	9.00	4.8E-04 [b]	0.016	40.0	3.9E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	1.02	[6]	--	0.64	[7]	--	0.012	[8]	--	0.15	4,000	3.6E-05 [b]	0.52	18,000	2.9E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	0.012	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.1E-04 [b]	5.9E-03	35.0	1.7E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN3_1																				
Cumulative TEU Risk		--	--	**1.39**	--	--	**0.082**	--	--	**7.5E-04**	--	--	**6.9E-03**	--	--	**5.2E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**41.5**			**29.8**			**0.59**			**7.79**			**25.3**			**0.59**		--
Acetaldehyde	75-07-0	0.56	0.45	1.24 [b]	0.40	5.50	0.073 [b]	8.0E-03	12.0	6.6E-04 [b]	0.10	140	7.5E-04 [b]	0.34	620	5.5E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.010	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.4E-03 [b]	6.1E-03	1.50	4.1E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.025	0.17	0.15 [b]	0.018	2.00	9.2E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	4.8E-03	9.00	5.3E-04 [b]	0.016	40.0	3.9E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.85	[6]	--	0.61	[7]	--	0.012	[8]	--	0.16	4,000	4.0E-05 [b]	0.52	18,000	2.9E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	9.7E-03	[6]	--	7.0E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.3E-04 [b]	5.9E-03	35.0	1.7E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN3_2																				
Cumulative TEU Risk		--	--	**1.39**	--	--	**0.085**	--	--	**7.5E-04**	--	--	**6.6E-03**	--	--	**5.3E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**41.7**			**30.8**			**0.59**			**7.47**			**26.0**			**0.59**		--
Acetaldehyde	75-07-0	0.56	0.45	1.24 [b]	0.41	5.50	0.075 [b]	8.0E-03	12.0	6.6E-04 [b]	0.10	140	7.2E-04 [b]	0.35	620	5.6E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.010	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.1E-03 [b]	6.3E-03	1.50	4.2E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.026	0.17	0.15 [b]	0.019	2.00	9.5E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	4.6E-03	9.00	5.1E-04 [b]	0.016	40.0	4.0E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.86	[6]	--	0.63	[7]	--	0.012	[8]	--	0.15	4,000	3.8E-05 [b]	0.53	18,000	3.0E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	9.7E-03	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.2E-04 [b]	6.1E-03	35.0	1.7E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN3_3																				
Cumulative TEU Risk		--	--	**1.40**	--	--	**0.087**	--	--	**7.5E-04**	--	--	**6.4E-03**	--	--	**5.5E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**41.7**			**31.8**			**0.60**			**7.17**			**26.8**			**0.60**		--
Acetaldehyde	75-07-0	0.56	0.45	1.24 [b]	0.43	5.50	0.078 [b]	8.0E-03	12.0	6.7E-04 [b]	0.096	140	6.9E-04 [b]	0.36	620	5.8E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.010	[6]	--	7.7E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	0.35	4.9E-03 [b]	6.5E-03	1.50	4.3E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.026	0.17	0.15 [b]	0.020	2.00	9.8E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.4E-03	9.00	4.9E-04 [b]	0.016	40.0	4.1E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.86	[6]	--	0.65	[7]	--	0.012	[8]	--	0.15	4,000	3.7E-05 [b]	0.55	18,000	3.1E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	9.7E-03	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.1E-04 [b]	6.2E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN4_1																				
Cumulative TEU Risk		--	--	**1.19**	--	--	**0.083**	--	--	**7.5E-04**	--	--	**7.0E-03**	--	--	**5.4E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**35.5**			**30.3**			**0.59**			**7.90**			**26.4**			**0.59**		--
Acetaldehyde	75-07-0	0.48	0.45	1.06 [b]	0.41	5.50	0.074 [b]	8.0E-03	12.0	6.6E-04 [b]	0.11	140	7.6E-04 [b]	0.35	620	5.7E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	8.6E-03	[6]	--	7.3E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.4E-03 [b]	6.4E-03	1.50	4.2E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.022	0.17	0.13 [b]	0.019	2.00	9.3E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	4.9E-03	9.00	5.4E-04 [b]	0.016	40.0	4.1E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.73	[6]	--	0.62	[7]	--	0.012	[8]	--	0.16	4,000	4.1E-05 [b]	0.54	18,000	3.0E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	8.3E-03	[6]	--	7.1E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.3E-04 [b]	6.2E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN4_2																				
Cumulative TEU Risk		--	--	**1.18**	--	--	**0.086**	--	--	**7.5E-04**	--	--	**6.7E-03**	--	--	**5.6E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**35.4**			**31.3**			**0.59**			**7.57**			**27.2**			**0.59**		--
Acetaldehyde	75-07-0	0.48	0.45	1.06 [b]	0.42	5.50	0.076 [b]	8.0E-03	12.0	6.7E-04 [b]	0.10	140	7.3E-04 [b]	0.36	620	5.9E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	8.5E-03	[6]	--	7.5E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.2E-03 [b]	6.6E-03	1.50	4.4E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.022	0.17	0.13 [b]	0.019	2.00	9.6E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.7E-03	9.00	5.2E-04 [b]	0.017	40.0	4.2E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.73	[6]	--	0.64	[7]	--	0.012	[8]	--	0.16	4,000	3.9E-05 [b]	0.56	18,000	3.1E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	8.3E-03	[6]	--	7.3E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.2E-04 [b]	6.3E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN4_3																				
Cumulative TEU Risk		--	--	**1.17**	--	--	**0.089**	--	--	**7.5E-04**	--	--	**6.4E-03**	--	--	**5.8E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**35.1**			**32.3**			**0.60**			**7.27**			**28.0**			**0.60**		--
Acetaldehyde	75-07-0	0.47	0.45	1.05 [b]	0.43	5.50	0.079 [b]	8.0E-03	12.0	6.7E-04 [b]	0.098	140	7.0E-04 [b]	0.38	620	6.1E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	8.5E-03	[6]	--	7.8E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.0E-03 [b]	6.8E-03	1.50	4.5E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.022	0.17	0.13 [b]	0.020	2.00	9.9E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.5E-03	9.00	5.0E-04 [b]	0.017	40.0	4.3E-04 [b]	3.7E-04	40.0	9.2E-06 [b]	--
Methanol	67-56-1	0.72	[6]	--	0.66	[7]	--	0.012	[8]	--	0.15	4,000	3.7E-05 [b]	0.57	18,000	3.2E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	8.2E-03	[6]	--	7.5E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.1E-04 [b]	6.5E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN5_1																				
Cumulative TEU Risk		--	--	**1.01**	--	--	**0.084**	--	--	**7.5E-04**	--	--	**7.1E-03**	--	--	**5.6E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**30.3**			**30.5**			**0.59**			**8.00**			**27.4**			**0.59**		--
Acetaldehyde	75-07-0	0.41	0.45	0.90 [b]	0.41	5.50	0.075 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	7.7E-04 [b]	0.37	620	5.9E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	7.3E-03	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.5E-03 [b]	6.6E-03	1.50	4.4E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.019	0.17	0.11 [b]	0.019	2.00	9.4E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.9E-03	9.00	5.5E-04 [b]	0.017	40.0	4.2E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.62	[6]	--	0.63	[7]	--	0.012	[8]	--	0.16	4,000	4.1E-05 [b]	0.56	18,000	3.1E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	7.1E-03	[6]	--	7.1E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	8.00	2.3E-04 [b]	6.4E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN5_2																				
Cumulative TEU Risk		--	--	**1.00**	--	--	**0.087**	--	--	**7.5E-04**	--	--	**6.8E-03**	--	--	**5.8E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**29.9**			**31.5**			**0.60**			**7.66**			**28.3**			**0.60**		--
Acetaldehyde	75-07-0	0.40	0.45	0.89 [b]	0.42	5.50	0.077 [b]	8.0E-03	12.0	6.7E-04 [b]	0.10	140	7.4E-04 [b]	0.38	620	6.1E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	7.2E-03	[6]	--	7.6E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.3E-03 [b]	6.8E-03	1.50	4.6E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.018	0.17	0.11 [b]	0.019	2.00	9.7E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.7E-03	9.00	5.2E-04 [b]	0.017	40.0	4.3E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.61	[6]	--	0.65	[7]	--	0.012	[8]	--	0.16	4,000	3.9E-05 [b]	0.58	18,000	3.2E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	7.0E-03	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.2E-04 [b]	6.6E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN5_3																				
Cumulative TEU Risk		--	--	**0.99**	--	--	**0.089**	--	--	**7.5E-04**	--	--	**6.5E-03**	--	--	**6.0E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**29.5**			**32.5**			**0.60**			**7.35**			**29.2**			**0.60**		--
Acetaldehyde	75-07-0	0.40	0.45	0.88 [b]	0.44	5.50	0.079 [b]	8.0E-03	12.0	6.7E-04 [b]	0.099	140	7.1E-04 [b]	0.39	620	6.3E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	7.1E-03	[6]	--	7.8E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.1E-03 [b]	7.0E-03	1.50	4.7E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.018	0.17	0.11 [b]	0.020	2.00	1.0E-02 [b]	3.7E-04	4.30	8.5E-05 [b]	4.5E-03	9.00	5.0E-04 [b]	0.018	40.0	4.5E-04 [b]	3.7E-04	40.0	9.2E-06 [b]	--
Methanol	67-56-1	0.61	[6]	--	0.67	[7]	--	0.012	[8]	--	0.15	4,000	3.8E-05 [b]	0.60	18,000	3.3E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	6.9E-03	[6]	--	7.6E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.1E-04 [b]	6.8E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--

MAUL FOSTER ALONGI

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
KILN6_1																				
Cumulative TEU Risk		--	--	**0.87**	--	--	**0.084**	--	--	**7.5E-04**	--	--	**7.2E-03**	--	--	**5.8E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**26.1**			**30.4**			**0.60**			**8.14**			**28.3**			**0.60**		--
Acetaldehyde	75-07-0	0.35	0.45	0.78 [b]	0.41	5.50	0.074 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	7.8E-04 [b]	0.38	620	6.1E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	6.3E-03	[6]	--	7.3E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	0.35	5.6E-03 [b]	6.8E-03	1.50	4.6E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.094 [b]	0.019	2.00	9.3E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	5.0E-03	9.00	5.6E-04 [b]	0.017	40.0	4.4E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.54	[6]	--	0.62	[7]	--	0.012	[8]	--	0.17	4,000	4.2E-05 [b]	0.58	18,000	3.2E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	6.1E-03	[6]	--	7.1E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	8.00	2.4E-04 [b]	6.6E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN6_2																				
Cumulative TEU Risk		--	--	**0.86**	--	--	**0.086**	--	--	**7.5E-04**	--	--	**6.9E-03**	--	--	**6.0E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**25.7**			**31.2**			**0.60**			**7.79**			**29.2**			**0.60**		--
Acetaldehyde	75-07-0	0.35	0.45	0.77 [b]	0.42	5.50	0.076 [b]	8.0E-03	12.0	6.7E-04 [b]	0.10	140	7.5E-04 [b]	0.39	620	6.3E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	6.2E-03	[6]	--	7.5E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.4E-03 [b]	7.0E-03	1.50	4.7E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.093 [b]	0.019	2.00	9.6E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.8E-03	9.00	5.3E-04 [b]	0.018	40.0	4.5E-04 [b]	3.7E-04	40.0	9.2E-06 [b]	--
Methanol	67-56-1	0.53	[6]	--	0.64	[7]	--	0.012	[8]	--	0.16	4,000	4.0E-05 [b]	0.60	18,000	3.3E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	6.0E-03	[6]	--	7.3E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.3E-04 [b]	6.8E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN6_3																				
Cumulative TEU Risk		--	--	**0.85**	--	--	**0.088**	--	--	**7.5E-04**	--	--	**6.6E-03**	--	--	**6.2E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**25.3**			**32.2**			**0.60**			**7.46**			**30.2**			**0.60**		--
Acetaldehyde	75-07-0	0.34	0.45	0.76 [b]	0.43	5.50	0.079 [b]	8.0E-03	12.0	6.7E-04 [b]	0.10	140	7.2E-04 [b]	0.41	620	6.5E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	6.1E-03	[6]	--	7.8E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	0.35	5.1E-03 [b]	7.3E-03	1.50	4.9E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.091 [b]	0.020	2.00	9.9E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.6E-03	9.00	5.1E-04 [b]	0.019	40.0	4.6E-04 [b]	3.7E-04	40.0	9.2E-06 [b]	--
Methanol	67-56-1	0.52	[6]	--	0.66	[7]	--	0.012	[8]	--	0.15	4,000	3.8E-05 [b]	0.62	18,000	3.4E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	5.9E-03	[6]	--	7.5E-03	[7]	--	1.4E-04	[8]	--	1.7E-03	8.00	2.2E-04 [b]	7.0E-03	35.0	2.0E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
RF12_STK																				
Cumulative TEU Risk		--	--	**0.14**	--	--	**0.014**	--	--	**7.5E-04**	--	--	**0.015**	--	--	**6.1E-03**	--	--	**5.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**3.39**			**4.03**			**0.47**			**3.13**			**5.43**			**0.47**		--
Acetaldehyde	75-07-0	0.048	0.45	0.11 [b]	0.058	5.50	0.010 [b]	6.6E-03	12.0	5.5E-04 [b]	0.045	140	3.2E-04 [b]	0.078	620	1.3E-04 [b]	6.6E-03	620	1.1E-05 [b]	--
Acetone	67-64-1	5.8E-03	[6]	--	6.9E-03	[7]	--	8.0E-04	[8]	--	5.4E-03	31,000	1.7E-07 [b]	9.3E-03	140,000	6.7E-08 [b]	8.0E-04	140,000	5.7E-09 [b]	--
Acrolein	107-02-8	5.3E-03	[6]	--	6.3E-03	[7]	--	7.3E-04	[8]	--	4.9E-03	0.35	0.014 [b]	8.5E-03	1.50	5.7E-03 [b]	7.3E-04	1.50	4.9E-04 [b]	--
Formaldehyde	50-00-0	6.1E-03	0.17	0.036 [b]	7.2E-03	2.00	3.6E-03 [b]	8.4E-04	4.30	1.9E-04 [b]	5.6E-03	9.00	6.3E-04 [b]	9.8E-03	40.0	2.4E-04 [b]	8.4E-04	40.0	2.1E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	4.3E-04	[6]	--	5.2E-04	[7]	--	6.0E-05	[8]	--	4.0E-04	3,000	1.3E-07 [b]	7.0E-04	13,000	5.4E-08 [b]	6.0E-05	13,000	4.6E-09 [b]	--
Methanol	67-56-1	3.5E-03	[6]	--	4.2E-03	[7]	--	4.8E-04	[8]	--	3.3E-03	4,000	8.1E-07 [b]	5.6E-03	18,000	3.1E-07 [b]	4.8E-04	18,000	2.7E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	2.5E-04	[6]	--	2.9E-04	[7]	--	3.4E-05	[8]	--	2.3E-04	5,000	4.5E-08 [b]	3.9E-04	22,000	1.8E-08 [b]	3.4E-05	22,000	1.5E-09 [b]	--
Propionaldehyde	123-38-6	6.6E-04	[6]	--	7.9E-04	[7]	--	9.1E-05	[8]	--	6.1E-04	8.00	7.7E-05 [b]	1.1E-03	35.0	3.0E-05 [b]	9.1E-05	35.0	2.6E-06 [b]	--
Styrene	100-42-5	3.2E-04	[6]	--	3.8E-04	[7]	--	4.4E-05	[8]	--	3.0E-04	1,000	3.0E-07 [b]	5.1E-04	4,400	1.2E-07 [b]	4.4E-05	4,400	1.0E-08 [b]	--
PVUV_STK																				
Cumulative TEU Risk		--	--	**0.33**	--	--	**0.024**	--	--	**1.8E-03**	--	--	**0.012**	--	--	**1.3E-03**	--	--	**1.9E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**0.81**			**0.69**			**0.11**			**1.52**			**0.74**			**0.11**		--
Acetaldehyde	75-07-0	4.0E-03	0.45	8.9E-03 [b]	3.4E-03	5.50	6.2E-04 [b]	5.4E-04	12.0	4.5E-05 [b]	7.5E-03	140	5.3E-05 [b]	3.7E-03	620	5.9E-06 [b]	5.4E-04	620	8.8E-07 [b]	--
Acetone	67-64-1	4.7E-03	[6]	--	4.0E-03	[7]	--	6.4E-04	[8]	--	8.8E-03	31,000	2.8E-07 [b]	4.3E-03	140,000	3.1E-08 [b]	6.4E-04	140,000	4.6E-09 [b]	--
Formaldehyde	50-00-0	0.055	0.17	0.33 [b]	0.047	2.00	0.023 [b]	7.5E-03	4.30	1.7E-03 [b]	0.10	9.00	0.011 [b]	0.051	40.0	1.3E-03 [b]	7.5E-03	40.0	1.9E-04 [b]	--
Methanol	67-56-1	0.045	[6]	--	0.038	[7]	--	6.1E-03	[8]	--	0.083	4,000	2.1E-05 [b]	0.041	18,000	2.3E-06 [b]	6.1E-03	18,000	3.4E-07 [b]	--
FORM_STK																				
Cumulative TEU Risk		--	--	**0.095**	--	--	**9.2E-03**	--	--	**3.7E-04**	--	--	**6.3E-03**	--	--	**2.6E-03**	--	--	**1.4E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**5.56**			**6.44**			**0.56**			**5.73**			**10.1**			**0.56**		--
Acetaldehyde	75-07-0	0.021	0.45	0.046 [b]	0.024	5.50	4.4E-03 [b]	2.1E-03	12.0	1.8E-04 [b]	0.022	140	1.5E-04 [b]	0.038	620	6.1E-05 [b]	2.1E-03	620	3.4E-06 [b]	--
Acetone	67-64-1	9.2E-03	[6]	--	0.011	[7]	--	9.3E-04	[8]	--	9.5E-03	31,000	3.1E-07 [b]	0.017	140,000	1.2E-07 [b]	9.3E-04	140,000	6.7E-09 [b]	--
Acrolein	107-02-8	1.8E-03	[6]	--	2.1E-03	[7]	--	1.8E-04	[8]	--	1.8E-03	0.35	5.2E-03 [b]	3.2E-03	1.50	2.1E-03 [b]	1.8E-04	1.50	1.2E-04 [b]	--
Formaldehyde	50-00-0	8.3E-03	0.17	0.049 [b]	9.6E-03	2.00	4.8E-03 [b]	8.4E-04	4.30	2.0E-04 [b]	8.5E-03	9.00	9.5E-04 [b]	0.015	40.0	3.8E-04 [b]	8.4E-04	40.0	2.1E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	6.6E-04	[6]	--	7.6E-04	[7]	--	6.7E-05	[8]	--	6.8E-04	3,000	2.3E-07 [b]	1.2E-03	13,000	9.2E-08 [b]	6.7E-05	13,000	5.1E-09 [b]	--
Methanol	67-56-1	0.047	[6]	--	0.055	[7]	--	4.8E-03	[8]	--	0.049	4,000	1.2E-05 [b]	0.086	18,000	4.8E-06 [b]	4.8E-03	18,000	2.7E-07 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.3E-03	[6]	--	1.5E-03	[7]	--	1.3E-04	[8]	--	1.3E-03	5,000	2.7E-07 [b]	2.3E-03	22,000	1.1E-07 [b]	1.3E-04	22,000	6.0E-09 [b]	--
Toluene	108-88-3	1.3E-03	[6]	--	1.5E-03	[7]	--	1.3E-04	[8]	--	1.3E-03	5,000	2.7E-07 [b]	2.4E-03	22,000	1.1E-07 [b]	1.3E-04	22,000	6.0E-09 [b]	--
HEADBOX																				
Cumulative TEU Risk		--	--	**0.012**	--	--	**1.6E-03**	--	--	**8.1E-05**	--	--	**1.4E-04**	--	--	**5.5E-05**	--	--	**4.7E-06**	--
Dispersion Factor (ug/m^3/[g/s])			**3.56**			**5.60**			**0.63**			**4.25**			**7.37**			**0.63**		--
Acetaldehyde	75-07-0	3.6E-03	0.45	8.1E-03 [b]	5.7E-03	5.50	1.0E-03 [b]	6.4E-04	12.0	5.4E-05 [b]	4.3E-03	140	3.1E-05 [b]	7.5E-03	620	1.2E-05 [b]	6.4E-04	620	1.0E-06 [b]	--
Acetone	67-64-1	9.6E-04	[6]	--	1.5E-03	[7]	--	1.7E-04	[8]	--	1.1E-03	31,000	3.7E-08 [b]	2.0E-03	140,000	1.4E-08 [b]	1.7E-04	140,000	1.2E-09 [b]	--
Acrolein	107-02-8	3.6E-23	[6]	--	5.7E-23	[7]	--	6.4E-24	[8]	--	4.3E-23	0.35	1.2E-22 [b]	7.4E-23	1.50	5.0E-23 [b]	6.4E-24	1.50	4.2E-24 [b]	--
Formaldehyde	50-00-0	6.8E-04	0.17	4.0E-03 [b]	1.1E-03	2.00	5.3E-04 [b]	1.2E-04	4.30	2.8E-05 [b]	8.1E-04	9.00	9.0E-05 [b]	1.4E-03	40.0	3.5E-05 [b]	1.2E-04	40.0	3.0E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.2E-03	[6]	--	2.0E-03	[7]	--	2.2E-04	[8]	--	1.5E-03	3,000	5.0E-07 [b]	2.6E-03	13,000	2.0E-07 [b]	2.2E-04	13,000	1.7E-08 [b]	--
Phenol	108-95-2	7.6E-06	[6]	--	1.2E-05	[7]	--	1.3E-06	[8]	--	9.1E-06	200	4.5E-08 [b]	1.6E-05	880	1.8E-08 [b]	1.3E-06	880	1.5E-09 [b]	--
Propionaldehyde	123-38-6	1.3E-04	[6]	--	2.1E-04	[7]	--	2.4E-05	[8]	--	1.6E-04	8.00	2.0E-05 [b]	2.8E-04	35.0	7.9E-06 [b]	2.4E-05	35.0	6.8E-07 [b]	--
S_CYC																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**3.8E-06**	--	--	**1.2E-06**	--	--	**4.9E-08**	--
Dispersion Factor (ug/m^3/[g/s])			**6.44**			**10.9**			**0.62**			**10.8**			**15.5**			**0.62**		--
Methanol	67-56-1	9.2E-03	[6]	--	0.016	[7]	--	8.9E-04	[8]	--	0.015	4,000	3.8E-06 [b]	0.022	18,000	1.2E-06 [b]	8.9E-04	18,000	4.9E-08 [b]	--
SM_CHP																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**3.9E-06**	--	--	**1.7E-06**	--	--	**1.9E-08**	--
Dispersion Factor (ug/m^3/[g/s])			**37.7**			**47.7**			**0.61**			**28.0**			**55.0**			**0.61**		--
Methanol	67-56-1	0.021	[6]	--	0.027	[7]	--	3.4E-04	[8]	--	0.016	4,000	3.9E-06 [b]	0.031	18,000	1.7E-06 [b]	3.4E-04	18,000	1.9E-08 [b]	--
FIRE																				
Cumulative TEU Risk		--	--	**0.076**	--	--	**4.3E-03**	--	--	**2.5E-04**	--	--	**1.6E-03**	--	--	**3.4E-04**	--	--	**1.6E-05**	--
Dispersion Factor (ug/m^3/[g/s])			**5.75**			**9.29**			**0.64**			**8.91**			**13.6**			**0.64**		--
Antimony and compounds	7440-36-0	1.9E-08	[6]	--	3.1E-08	[7]	--	2.1E-09	[8]	--	2.9E-08	0.30	9.8E-08 [b]	4.5E-08	1.30	3.4E-08 [b]	2.1E-09	1.30	1.6E-09 [b]	--
Arsenic and compounds	7440-38-2	9.5E-08	2.4E-05	4.0E-03 [b]	1.5E-07	6.2E-04	2.5E-04 [b]	1.1E-08	1.3E-03	8.2E-06 [b]	1.5E-07	1.7E-04	8.7E-04 [b]	2.3E-07	2.4E-03	9.4E-05 [b]	1.1E-08	2.4E-03	4.4E-06 [b]	--
Barium and compounds	7440-39-3	2.2E-08	[6]	--	3.6E-08	[7]	--	2.5E-09	[8]	--	3.5E-08	[9]	--	5.3E-08	[10]	--	2.5E-09	[11]	--	--
Beryllium and compounds	7440-41-7	2.8E-10	4.2E-04	6.8E-07 [b]	4.6E-10	5.0E-03	9.2E-08 [b]	3.2E-11	0.011	2.9E-09 [b]	4.4E-10	7.0E-03	6.3E-08 [b]	6.7E-10	0.031	2.2E-08 [b]	3.2E-11	0.031	1.0E-09 [b]	--
Cadmium and compounds	7440-43-9	8.9E-08	5.6E-04	1.6E-04 [b]	1.4E-07	6.7E-03	2.2E-05 [b]	1.0E-08	0.014	7.1E-07 [b]	1.4E-07	5.0E-03	2.8E-05 [b]	2.1E-07	0.037	5.7E-06 [b]	1.0E-08	0.037	2.7E-07 [b]	--
Chromium VI	18540-29-9	6.0E-09	3.1E-05	1.9E-04 [b]	9.6E-09	1.0E-03	9.6E-06 [b]	6.7E-10	5.2E-04	1.3E-06 [b]	9.2E-09	0.083	1.1E-07 [b]	1.4E-08	0.88	1.6E-08 [b]	6.7E-10	0.88	7.6E-10 [b]	--
Cobalt and compounds	7440-48-4	9.4E-10	[6]	--	1.5E-09	[7]	--	1.1E-10	[8]	--	1.5E-09	0.10	1.5E-08 [b]	2.2E-09	0.44	5.0E-09 [b]	1.1E-10	0.44	2.4E-10 [b]	--
Copper and compounds	7440-50-8	2.4E-07	[6]	--	3.9E-07	[7]	--	2.7E-08	[8]	--	3.8E-07	[9]	--	5.8E-07	[10]	--	2.7E-08	[11]	--	--
Lead and compounds	7439-92-1	4.9E-07	[6]	--	8.0E-07	[7]	--	5.5E-08	[8]	--	7.7E-07	0.15	5.1E-06 [b]	1.2E-06	0.66	1.8E-06 [b]	5.5E-08	0.66	8.4E-08 [b]	--
Phosphorus and compounds	504	5.0E-07	[6]	--	8.1E-07	[7]	--	5.6E-08	[8]	--	7.8E-07	[9]	--	1.2E-06	[10]	--	5.6E-08	[11]	--	--
Manganese and compounds	7439-96-5	1.8E-07	[6]	--	3.0E-07	[7]	--	2.1E-08	[8]	--	2.9E-07	0.090	3.2E-06 [b]	4.4E-07	0.40	1.1E-06 [b]	2.1E-08	0.40	5.2E-08 [b]	--
Mercury and compounds	7439-97-6	1.2E-07	[6]	--	1.9E-07	[7]	--	1.3E-08	[8]	--	1.8E-07	0.077	2.4E-06 [b]	2.8E-07	0.63	4.5E-07 [b]	1.3E-08	0.63	2.1E-08 [b]	--
Nickel and compounds	365	2.3E-07	3.8E-03	6.1E-05 [b]	3.8E-07	0.046	8.2E-06 [b]	2.6E-08	0.10	2.6E-07 [b]	3.6E-07	0.014	2.6E-05 [b]	5.5E-07	0.062	8.9E-06 [b]	2.6E-08	0.062	4.2E-07 [b]	--
Selenium and compounds	7782-49-2	1.3E-07	[6]	--	2.1E-07	[7]	--	1.5E-08	[8]	--	2.0E-07	[9]	--	3.1E-07	[10]	--	1.5E-08	[11]	--	--
Silver and compounds	7440-22-4	2.9E-09	[6]	--	4.6E-09	[7]	--	3.2E-10	[8]	--	4.4E-09	[9]	--	6.8E-09	[10]	--	3.2E-10	[11]	--	--
Thallium and compounds	7440-28-0	1.4E-08	[6]	--	2.3E-08	[7]	--	1.6E-09	[8]	--	2.2E-08	[9]	--	3.4E-08	[10]	--	1.6E-09	[11]	--	--
Zinc and compounds	7440-66-6	3.1E-07	[6]	--	5.0E-07	[7]	--	3.5E-08	[8]	--	4.8E-07	[9]	--	7.4E-07	[10]	--	3.5E-08	[11]	--	--
Acetaldehyde	75-07-0	4.7E-05	0.45	1.0E-04 [b]	7.5E-05	5.50	1.4E-05 [b]	5.2E-06	12.0	4.4E-07 [b]	7.2E-05	140	5.2E-07 [b]	1.1E-04	620	1.8E-07 [b]	5.2E-06	620	8.4E-09 [b]	--
Acrolein	107-02-8	2.0E-06	[6]	--	3.3E-06	[7]	--	2.3E-07	[8]	--	3.1E-06	0.35	8.9E-06 [b]	4.8E-06	1.50	3.2E-06 [b]	2.3E-07	1.50	1.5E-07 [b]	--
Ammonia	7664-41-7	1.7E-04	[6]	--	2.8E-04	[7]	--	1.9E-05	[8]	--	2.7E-04	500	5.4E-07 [b]	4.1E-04	2,200	1.9E-07 [b]	1.9E-05	2,200	8.8E-09 [b]	--
Benzene	71-43-2	1.1E-05	0.13	8.5E-05 [b]	1.8E-05	1.50	1.2E-05 [b]	1.2E-06	3.30	3.8E-07 [b]	1.7E-05	3.00	5.7E-06 [b]	2.6E-05	13.0	2.0E-06 [b]	1.2E-06	13.0	9.6E-08 [b]	--
Chlorobenzene	108-90-7	1.2E-08	[6]	--	1.9E-08	[7]	--	1.3E-09	[8]	--	1.8E-08	50.0	3.7E-10 [b]	2.8E-08	220	1.3E-10 [b]	1.3E-09	220	6.1E-12 [b]	--
Ethyl benzene	100-41-4	6.5E-07	0.40	1.6E-06 [b]	1.0E-06	4.80	2.2E-07 [b]	7.3E-08	10.0	7.3E-09 [b]	1.0E-06	260	3.9E-09 [b]	1.5E-06	1,100	1.4E-09 [b]	7.3E-08	1,100	6.6E-11 [b]	--
Formaldehyde	50-00-0	1.0E-04	0.17	6.1E-04 [b]	1.7E-04	2.00	8.3E-05 [b]	1.2E-05	4.30	2.7E-06 [b]	1.6E-04	9.00	1.8E-05 [b]	2.4E-04	40.0	6.1E-06 [b]	1.2E-05	40.0	2.9E-07 [b]	--
Hexane	110-54-3	1.6E-06	[6]	--	2.6E-06	[7]	--	1.8E-07	[8]	--	2.5E-06	700	3.5E-09 [b]	3.8E-06	3,100	1.2E-09 [b]	1.8E-07	3,100	5.8E-11 [b]	--
1,3-Butadiene	106-99-0	1.3E-05	0.033	3.9E-04 [b]	2.1E-05	0.40	5.2E-05 [b]	1.4E-06	0.86	1.7E-06 [b]	2.0E-05	2.00	1.0E-05 [b]	3.1E-05	8.80	3.5E-06 [b]	1.4E-06	8.80	1.6E-07 [b]	--
Propylene	115-07-1	2.8E-05	[6]	--	4.5E-05	[7]	--	3.1E-06	[8]	--	4.3E-05	3,000	1.4E-08 [b]	6.6E-05	13,000	5.1E-09 [b]	3.1E-06	13,000	2.4E-10 [b]	--
Toluene	108-88-3	6.3E-06	[6]	--	1.0E-05	[7]	--	7.0E-07	[8]	--	9.7E-06	5,000	1.9E-09 [b]	1.5E-05	22,000	6.7E-10 [b]	7.0E-07	22,000	3.2E-11 [b]	--
Xylene (mixture)	1330-20-7	2.5E-06	[6]	--	4.1E-06	[7]	--	2.8E-07	[8]	--	3.9E-06	220	1.8E-08 [b]	6.0E-06	970	6.2E-09 [b]	2.8E-07	970	2.9E-10 [b]	--
Hydrochloric acid	7647-01-0	1.1E-05	[6]	--	1.8E-05	[7]	--	1.2E-06	[8]	--	1.7E-05	20.0	8.6E-07 [b]	2.6E-05	88.0	3.0E-07 [b]	1.2E-06	88.0	1.4E-08 [b]	--
DPM	200	2.0E-03	0.10	0.020 [b]	3.2E-03	1.20	2.7E-03 [b]	2.2E-04	2.60	8.6E-05 [b]	3.1E-03	5.00	6.2E-04 [b]	4.7E-03	22.0	2.1E-04 [b]	2.2E-04	22.0	1.0E-05 [b]	--
PAHs (excluding Naphthalene)	401	2.2E-06	4.3E-05	0.050 [b]	3.5E-06	3.0E-03	1.2E-03 [b]	2.4E-07	1.6E-03	1.5E-04 [b]	3.3E-06	[9]	--	5.1E-06	[10]	--	2.4E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	2.1E-09	4.3E-05	4.9E-05 [b]	3.4E-09	3.0E-03	1.1E-06 [b]	2.3E-10	1.6E-03	1.5E-07 [b]	3.2E-09	2.0E-03	1.6E-06 [b]	5.0E-09	8.8E-03	5.6E-07 [b]	2.3E-10	8.8E-03	2.7E-08 [b]	--
Naphthalene	91-20-3	1.2E-06	0.029	4.0E-05 [b]	1.9E-06	0.35	5.4E-06 [b]	1.3E-07	0.76	1.7E-07 [b]	1.8E-06	3.70	4.9E-07 [b]	2.8E-06	16.0	1.7E-07 [b]	1.3E-07	16.0	8.2E-09 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
BGEN																				
Cumulative TEU Risk		--	--	**0.33**	--	--	**0.011**	--	--	**1.1E-03**	--	--	**5.9E-03**	--	--	**7.9E-04**	--	--	**4.9E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**5.43**			**7.77**			**0.65**			**8.13**			**10.5**			**0.65**			--
Antimony and compounds	7440-36-0	1.0E-07	[6]	--	1.5E-07	[7]	--	1.2E-08	[8]	--	1.5E-07	0.30	5.1E-07 [b]	2.0E-07	1.30	1.5E-07 [b]	1.2E-08	1.30	9.3E-09 [b]	--
Arsenic and compounds	7440-38-2	5.1E-07	2.4E-05	0.021 [b]	7.3E-07	6.2E-04	1.2E-03 [b]	6.1E-08	1.3E-03	4.7E-05 [b]	7.6E-07	1.7E-04	4.5E-03 [b]	9.9E-07	2.4E-03	4.1E-04 [b]	6.1E-08	2.4E-03	2.5E-05 [b]	--
Barium and compounds	7440-39-3	1.2E-07	[6]	--	1.7E-07	[7]	--	1.4E-08	[8]	--	1.8E-07	[9]	--	2.3E-07	[10]	--	1.4E-08	[11]	--	--
Beryllium and compounds	7440-41-7	1.5E-09	4.2E-04	3.6E-06 [b]	2.2E-09	5.0E-03	4.4E-07 [b]	1.8E-10	0.011	1.6E-08 [b]	2.3E-09	7.0E-03	3.3E-07 [b]	3.0E-09	0.031	9.5E-08 [b]	1.8E-10	0.031	5.8E-09 [b]	--
Cadmium and compounds	7440-43-9	4.8E-07	5.6E-04	8.5E-04 [b]	6.8E-07	6.7E-03	1.0E-04 [b]	5.7E-08	0.014	4.1E-06 [b]	7.2E-07	5.0E-03	1.4E-04 [b]	9.3E-07	0.037	2.5E-05 [b]	5.7E-08	0.037	1.5E-06 [b]	--
Chromium VI	18540-29-9	3.2E-08	3.1E-05	1.0E-03 [b]	4.6E-08	1.0E-03	4.6E-05 [b]	3.8E-09	5.2E-04	7.3E-06 [b]	4.8E-08	0.083	5.8E-07 [b]	6.2E-08	0.88	7.0E-08 [b]	3.8E-09	0.88	4.3E-09 [b]	--
Cobalt and compounds	7440-48-4	5.0E-09	[6]	--	7.2E-09	[7]	--	6.0E-10	[8]	--	7.5E-09	0.10	7.5E-08 [b]	9.7E-09	0.44	2.2E-08 [b]	6.0E-10	0.44	1.4E-09 [b]	--
Copper and compounds	7440-50-8	1.3E-06	[6]	--	1.9E-06	[7]	--	1.6E-07	[8]	--	2.0E-06	[9]	--	2.5E-06	[10]	--	1.6E-07	[11]	--	--
Lead and compounds	7439-92-1	2.6E-06	[6]	--	3.8E-06	[7]	--	3.1E-07	[8]	--	4.0E-06	0.15	2.6E-05 [b]	5.1E-06	0.66	7.8E-06 [b]	3.1E-07	0.66	4.8E-07 [b]	--
Phosphorus and compounds	504	2.7E-06	[6]	--	3.8E-06	[7]	--	3.2E-07	[8]	--	4.0E-06	[9]	--	5.2E-06	[10]	--	3.2E-07	[11]	--	--
Manganese and compounds	7439-96-5	9.9E-07	[6]	--	1.4E-06	[7]	--	1.2E-07	[8]	--	1.5E-06	0.090	1.6E-05 [b]	1.9E-06	0.40	4.8E-06 [b]	1.2E-07	0.40	2.9E-07 [b]	--
Mercury and compounds	7439-97-6	6.4E-07	[6]	--	9.1E-07	[7]	--	7.6E-08	[8]	--	9.5E-07	0.077	1.2E-05 [b]	1.2E-06	0.63	2.0E-06 [b]	7.6E-08	0.63	1.2E-07 [b]	--
Nickel and compounds	365	1.2E-06	3.8E-03	3.3E-04 [b]	1.8E-06	0.046	3.9E-05 [b]	1.5E-07	0.10	1.5E-06 [b]	1.9E-06	0.014	1.3E-04 [b]	2.4E-06	0.062	3.9E-05 [b]	1.5E-07	0.062	2.4E-06 [b]	--
Selenium and compounds	7782-49-2	7.0E-07	[6]	--	1.0E-06	[7]	--	8.3E-08	[8]	--	1.1E-06	[9]	--	1.4E-06	[10]	--	8.3E-08	[11]	--	--
Silver and compounds	7440-22-4	1.5E-08	[6]	--	2.2E-08	[7]	--	1.8E-09	[8]	--	2.3E-08	[9]	--	3.0E-08	[10]	--	1.8E-09	[11]	--	--
Thailium and compounds	7440-28-0	7.7E-08	[6]	--	1.1E-07	[7]	--	9.1E-09	[8]	--	1.1E-07	[9]	--	1.5E-07	[10]	--	9.1E-09	[11]	--	--
Zinc and compounds	7440-66-6	1.7E-06	[6]	--	2.4E-06	[7]	--	2.0E-07	[8]	--	2.5E-06	[9]	--	3.2E-06	[10]	--	2.0E-07	[11]	--	--
Acetaldehyde	75-07-0	2.5E-04	0.45	5.6E-04 [b]	3.6E-04	5.50	6.5E-05 [b]	3.0E-05	12.0	2.5E-06 [b]	3.7E-04	140	2.7E-06 [b]	4.8E-04	620	7.8E-07 [b]	3.0E-05	620	4.8E-08 [b]	--
Acrolein	107-02-8	1.1E-05	[6]	--	1.5E-05	[7]	--	1.3E-06	[8]	--	1.6E-05	0.35	4.6E-05 [b]	2.1E-05	1.50	1.4E-05 [b]	1.3E-06	1.50	8.6E-07 [b]	--
Ammonia	7664-41-7	9.3E-04	[6]	--	1.3E-03	[7]	--	1.1E-04	[8]	--	1.4E-03	500	2.8E-06 [b]	1.8E-03	2,200	8.2E-07 [b]	1.1E-04	2,200	5.0E-08 [b]	--
Benzene	71-43-2	5.9E-05	0.13	4.6E-04 [b]	8.5E-05	1.50	5.7E-05 [b]	7.1E-06	3.30	2.1E-06 [b]	8.9E-05	3.00	3.0E-05 [b]	1.2E-04	13.0	8.9E-06 [b]	7.1E-06	13.0	5.4E-07 [b]	--
Chlorobenzene	108-90-7	6.4E-08	[6]	--	9.1E-08	[7]	--	7.6E-09	[8]	--	9.5E-08	50.0	1.9E-09 [b]	1.2E-07	220	5.6E-10 [b]	7.6E-09	220	3.4E-11 [b]	--
Ethyl benzene	100-41-4	3.5E-06	0.40	8.7E-06 [b]	5.0E-06	4.80	1.0E-06 [b]	4.1E-07	10.0	4.1E-08 [b]	5.2E-06	260	2.0E-08 [b]	6.7E-06	1,100	6.1E-09 [b]	4.1E-07	1,100	3.8E-10 [b]	--
Formaldehyde	50-00-0	5.5E-04	0.17	3.2E-03 [b]	7.9E-04	2.00	3.9E-04 [b]	6.5E-05	4.30	1.5E-05 [b]	8.2E-04	9.00	9.2E-05 [b]	1.1E-03	40.0	2.7E-05 [b]	6.5E-05	40.0	1.6E-06 [b]	--
Hexane	110-54-3	8.6E-06	[6]	--	1.2E-05	[7]	--	1.0E-06	[8]	--	1.3E-05	700	1.8E-08 [b]	1.7E-05	3,100	5.4E-09 [b]	1.0E-06	3,100	3.3E-10 [b]	--
1,3-Butadiene	106-99-0	6.9E-05	0.033	2.1E-03 [b]	9.9E-05	0.40	2.5E-04 [b]	8.2E-06	0.86	9.6E-06 [b]	1.0E-04	2.00	5.2E-05 [b]	1.3E-04	8.80	1.5E-05 [b]	8.2E-06	8.80	9.4E-07 [b]	--
Propylene	115-07-1	1.5E-04	[6]	--	2.1E-04	[7]	--	1.8E-05	[8]	--	2.2E-04	3,000	7.5E-08 [b]	2.9E-04	13,000	2.2E-08 [b]	1.8E-05	13,000	1.4E-09 [b]	--
Toluene	108-88-3	3.4E-05	[6]	--	4.8E-05	[7]	--	4.0E-06	[8]	--	5.0E-05	5,000	1.0E-08 [b]	6.5E-05	22,000	3.0E-09 [b]	4.0E-06	22,000	1.8E-10 [b]	--
Xylene (mixture)	1330-20-7	1.4E-05	[6]	--	1.9E-05	[7]	--	1.6E-06	[8]	--	2.0E-05	220	9.2E-08 [b]	2.6E-05	970	2.7E-08 [b]	1.6E-06	970	1.7E-09 [b]	--
Hydrochloric acid	7647-01-0	5.9E-05	[6]	--	8.5E-05	[7]	--	7.1E-06	[8]	--	8.9E-05	20.0	4.4E-06 [b]	1.2E-04	88.0	1.3E-06 [b]	7.1E-06	88.0	8.0E-08 [b]	--
DPM	200	2.6E-03	0.10	0.026 [b]	3.8E-03	1.20	3.1E-03 [b]	3.1E-04	2.60	1.2E-04 [b]	3.9E-03	5.00	7.9E-04 [b]	5.1E-03	22.0	2.3E-04 [b]	3.1E-04	22.0	1.4E-05 [b]	--
PAHs (excluding Naphthalene)	401	1.2E-05	4.3E-05	0.27 [b]	1.7E-05	3.0E-03	5.5E-03 [b]	1.4E-06	1.6E-03	8.6E-04 [b]	1.7E-05	[9]	--	2.2E-05	[10]	--	1.4E-06	[11]	--	--
Benzo[a]pyrene	50-32-8	1.1E-08	4.3E-05	2.6E-04 [b]	1.6E-08	3.0E-03	5.4E-06 [b]	1.3E-09	1.6E-03	8.3E-07 [b]	1.7E-08	2.0E-03	8.4E-06 [b]	2.2E-08	8.8E-03	2.5E-06 [b]	1.3E-09	8.8E-03	1.5E-07 [b]	--
Naphthalene	91-20-3	6.3E-06	0.029	2.2E-04 [b]	9.0E-06	0.35	2.6E-05 [b]	7.5E-07	0.76	9.8E-07 [b]	9.4E-06	3.70	2.5E-06 [b]	1.2E-05	16.0	7.6E-07 [b]	7.5E-07	16.0	4.7E-08 [b]	--
EGEN01																				
Cumulative TEU Risk		--	--	**0.16**	--	--	**7.7E-03**	--	--	**4.5E-04**	--	--	**3.3E-03**	--	--	**6.1E-04**	--	--	**2.9E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**6.03**			**8.02**			**0.55**			**8.90**			**11.8**			**0.55**			--
Antimony and compounds	7440-36-0	4.1E-08	[6]	--	5.5E-08	[7]	--	3.8E-09	[8]	--	6.1E-08	0.30	2.0E-07 [b]	8.0E-08	1.30	6.2E-08 [b]	3.8E-09	1.30	2.9E-09 [b]	--
Arsenic and compounds	7440-38-2	2.1E-07	2.4E-05	8.6E-03 [b]	2.8E-07	6.2E-04	4.4E-04 [b]	1.9E-08	1.3E-03	1.5E-05 [b]	3.1E-07	1.7E-04	1.8E-03 [b]	4.0E-07	2.4E-03	1.7E-04 [b]	1.9E-08	2.4E-03	7.9E-06 [b]	--
Barium and compounds	7440-39-3	4.8E-08	[6]	--	6.4E-08	[7]	--	4.4E-09	[8]	--	7.1E-08	[9]	--	9.4E-08	[10]	--	4.4E-09	[11]	--	--
Beryllium and compounds	7440-41-7	6.2E-10	4.2E-04	1.5E-06 [b]	8.2E-10	5.0E-03	1.6E-07 [b]	5.7E-11	0.011	5.1E-09 [b]	9.1E-10	7.0E-03	1.3E-07 [b]	1.2E-09	0.031	3.9E-08 [b]	5.7E-11	0.031	1.8E-09 [b]	--
Cadmium and compounds	7440-43-9	1.9E-07	5.6E-04	3.5E-04 [b]	2.6E-07	6.7E-03	3.8E-05 [b]	1.8E-08	0.014	1.3E-06 [b]	2.9E-07	5.0E-03	5.7E-05 [b]	3.8E-07	0.037	1.0E-05 [b]	1.8E-08	0.037	4.8E-07 [b]	--
Chromium VI	18540-29-9	1.3E-08	3.1E-05	4.2E-04 [b]	1.7E-08	1.0E-03	1.7E-05 [b]	1.2E-09	5.2E-04	2.3E-06 [b]	1.9E-08	0.083	2.3E-07 [b]	2.5E-08	0.88	2.9E-08 [b]	1.2E-09	0.88	1.3E-09 [b]	--
Cobalt and compounds	7440-48-4	2.0E-09	[6]	--	2.7E-09	[7]	--	1.9E-10	[8]	--	3.0E-09	0.10	3.0E-08 [b]	4.0E-09	0.44	9.0E-09 [b]	1.9E-10	0.44	4.2E-10 [b]	--
Copper and compounds	7440-50-8	5.3E-07	[6]	--	7.0E-07	[7]	--	4.9E-08	[8]	--	7.8E-07	[9]	--	1.0E-06	[10]	--	4.9E-08	[11]	--	--
Lead and compounds	7439-92-1	1.1E-06	[6]	--	1.4E-06	[7]	--	9.8E-08	[8]	--	1.6E-06	0.15	1.1E-05 [b]	2.1E-06	0.66	3.2E-06 [b]	9.8E-08	0.66	1.5E-07 [b]	--
Phosphorus and compounds	504	1.1E-06	[6]	--	1.4E-06	[7]	--	1.0E-07	[8]	--	1.6E-06	[9]	--	2.1E-06	[10]	--	1.0E-07	[11]	--	--
Manganese and compounds	7439-96-5	4.0E-07	[6]	--	5.3E-07	[7]	--	3.7E-08	[8]	--	5.9E-07	0.090	6.6E-06 [b]	7.8E-07	0.40	2.0E-06 [b]	3.7E-08	0.40	9.2E-08 [b]	--
Mercury and compounds	7439-97-6	2.6E-07	[6]	--	3.4E-07	[7]	--	2.4E-08	[8]	--	3.8E-07	0.077	5.0E-06 [b]	5.0E-07	0.63	8.0E-07 [b]	2.4E-08	0.63	3.8E-08 [b]	--
Nickel and compounds	365	5.0E-07	3.8E-03	1.3E-04 [b]	6.7E-07	0.046	1.5E-05 [b]	4.6E-08	0.10	4.6E-07 [b]	7.4E-07	0.014	5.3E-05 [b]	9.8E-07	0.062	1.6E-05 [b]	4.6E-08	0.062	7.5E-07 [b]	--
Selenium and compounds	7782-49-2	2.8E-07	[6]	--	3.8E-07	[7]	--	2.6E-08	[8]	--	4.2E-07	[9]	--	5.6E-07	[10]	--	2.6E-08	[11]	--	--
Silver and compounds	7440-22-4	6.2E-09	[6]	--	8.3E-09	[7]	--	5.7E-10	[8]	--	9.2E-09	[9]	--	1.2E-08	[10]	--	5.7E-10	[11]	--	--
Thailium and compounds	7440-28-0	3.1E-08	[6]	--	4.1E-08	[7]	--	2.8E-09	[8]	--	4.6E-08	[9]	--	6.1E-08	[10]	--	2.8E-09	[11]	--	--
Zinc and compounds	7440-66-6	6.8E-07	[6]	--	9.0E-07	[7]	--	6.2E-08	[8]	--	1.0E-06	[9]	--	1.3E-06	[10]	--	6.2E-08	[11]	--	--
Acetaldehyde	75-07-0	1.0E-04	0.45	2.2E-04 [b]	1.3E-04	5.50	2.4E-05 [b]	9.3E-06	12.0	7.7E-07 [b]	1.5E-04	140	1.1E-06 [b]	2.0E-04	620	3.2E-07 [b]	9.3E-06	620	1.5E-08 [b]	--
Acrolein	107-02-8	4.4E-06	[6]	--	5.8E-06	[7]	--	4.0E-07	[8]	--	6.5E-06	0.35	1.8E-05 [b]	8.6E-06	1.50	5.7E-06 [b]	4.0E-07	1.50	2.7E-07 [b]	--
Ammonia	7664-41-7	3.7E-04	[6]	--	5.0E-04	[7]	--	3.4E-05	[8]	--	5.5E-04	500	1.1E-06 [b]	7.3E-04	2,200	3.3E-07 [b]	3.4E-05	2,200	1.6E-08 [b]	--
Benzene	71-43-2	2.4E-05	0.13	1.9E-04 [b]	3.2E-05	1.50	2.1E-05 [b]	2.2E-06	3.30	6.7E-07 [b]	3.6E-05	3.00	1.2E-05 [b]	4.7E-05	13.0	3.6E-06 [b]	2.2E-06	13.0	1.7E-07 [b]	--
Chlorobenzene	108-90-7	2.6E-08	[6]	--	3.4E-08	[7]	--	2.4E-09	[8]	--	3.8E-08	50.0	7.6E-10 [b]	5.0E-08	220	2.3E-10 [b]	2.4E-09	220	1.1E-11 [b]	--
Ethyl benzene	100-41-4	1.4E-06	0.40	3.5E-06 [b]	1.9E-06	4.80	3.9E-07 [b]	1.3E-07	10.0	1.3E-08 [b]	2.1E-06	260	8.0E-09 [b]	2.8E-06	1,100	2.5E-09 [b]	1.3E-07	1,100	1.2E-10 [b]	--
Formaldehyde	50-00-0	2.2E-04	0.17	1.3E-03 [b]	3.0E-04	2.00	1.5E-04 [b]	2.0E-05	4.30	4.8E-06 [b]	3.3E-04	9.00	3.7E-05 [b]	4.4E-04	40.0	1.1E-05 [b]	2.0E-05	40.0	5.1E-07 [b]	--
Hexane	110-54-3	3.5E-06	[6]	--	4.6E-06	[7]	--	3.2E-07	[8]	--	5.1E-06	700	7.3E-09 [b]	6.8E-06	3,100	2.2E-09 [b]	3.2E-07	3,100	1.0E-10 [b]	--
1,3-Butadiene	106-99-0	2.8E-05	0.033	8.5E-04 [b]	3.7E-05	0.40	9.3E-05 [b]	2.6E-06	0.86	3.0E-06 [b]	4.1E-05	2.00	2.1E-05 [b]	5.5E-05	8.80	6.2E-06 [b]	2.6E-06	8.80	2.9E-07 [b]	--
Propylene	115-07-1	6.1E-05	[6]	--	8.1E-05	[7]	--	5.6E-06	[8]	--	9.0E-05	3,000	3.0E-08 [b]	1.2E-04	13,000	9.1E-09 [b]	5.6E-06	13,000	4.3E-10 [b]	--
Toluene	108-88-3	1.4E-05	[6]	--	1.8E-05	[7]	--	1.2E-06	[8]	--	2.0E-05	5,000	4.0E-09 [b]	2.7E-05	22,000	1.2E-09 [b]	1.2E-06	22,000	5.7E-11 [b]	--
Xylene (mixture)	1330-20-7	5.5E-06	[6]	--	7.3E-06	[7]	--	5.0E-07	[8]	--	8.1E-06	220	3.7E-08 [b]	1.1E-05	970	1.1E-08 [b]	5.0E-07	970	5.2E-10 [b]	--
Hydrochloric acid	7647-01-0	2.4E-05	[6]	--	3.2E-05	[7]	--	2.2E-06	[8]	--	3.6E-05	20.0	1.8E-06 [b]	4.7E-05	88.0	5.3E-07 [b]	2.2E-06	88.0	2.5E-08 [b]	--
DPM	200	4.3E-03	0.10	0.043 [b]	5.8E-03	1.20	4.8E-03	4.0E-04	2.60	1.5E-04	6.4E-03	5.00	1.3E-03 [b]	8.5E-03	22.0	3.8E-04 [b]	4.0E-04	22.0	1.8E-05 [b]	--
PAHs (excluding Naphthalene)	401	4.7E-06	4.3E-05	0.11 [b]	6.2E-06	3.0E-03	2.1E-03	4.3E-07	1.6E-03	2.7E-04	6.9E-06	[9]	--	9.1E-06	[10]	--	4.3E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	4.6E-09	4.3E-05	1.1E-04 [b]	6.1E-09	3.0E-03	2.0E-06 [b]	4.2E-10	1.6E-03	2.6E-07 [b]	6.8E-09	2.0E-03	3.4E-06 [b]	9.0E-09	8.8E-03	1.0E-06 [b]	4.2E-10	8.8E-03	4.8E-08 [b]	--
Naphthalene	91-20-3	2.5E-06	0.029	8.8E-05 [b]	3.4E-06	0.35	9.7E-06 [b]	2.3E-07	0.76	3.1E-07 [b]	3.8E-06	3.70	1.0E-06 [b]	5.0E-06	16.0	3.1E-07 [b]	2.3E-07	16.0	1.5E-08 [b]	--
WHITE																				
Cumulative TEU Risk		--	--	**0.019**	--	--	**2.7E-03**	--	--	**4.7E-05**	--	--	**2.8E-04**	--	--	**1.7E-04**	--	--	**4.1E-06**	--
Dispersion Factor (ug/m^3/[g/s])		**10.3**			**17.4**			**0.64**			**9.82**			**26.2**			**0.64**			--
Acetaldehyde	75-07-0	2.4E-03	0.45	5.3E-03 [b]	4.0E-03	5.50	7.3E-04 [b]	1.5E-04	12.0	1.2E-05 [b]	2.3E-03	140	1.6E-05 [b]	6.1E-03	620	9.8E-06 [b]	1.5E-04	620	2.4E-07 [b]	--
Acetone	67-64-1	9.0E-04	[6]	--	1.5E-03	[7]	--	5.6E-05	[8]	--	8.6E-04	31,000	2.8E-08 [b]	2.3E-03	140,000	1.6E-08 [b]	5.6E-05	140,000	4.0E-10 [b]	--
Acrolein	107-02-8	1.7E-23	[6]	--	2.9E-23	[7]	--	1.1E-24	[8]	--	1.7E-23	0.35	4.7E-23 [b]	4.4E-23	1.50	3.0E-23 [b]	1.1E-24	1.50	7.2E-25 [b]	--
Epichlorohydrin	106-89-8	1.1E-06	0.043	2.6E-05 [b]	1.9E-06	0.52	3.6E-06 [b]	7.0E-08	1.10	6.3E-08 [b]	1.1E-06	3.00	3.6E-07 [b]	2.9E-06	13.0	2.2E-07 [b]	7.0E-08	13.0	5.4E-09 [b]	--
Formaldehyde	50-00-0	2.4E-03	0.17	0.014 [b]	4.0E-03	2.00	2.0E-03 [b]	1.5E-04	4.30	3.4E-05 [b]	2.3E-03	9.00	2.5E-04 [b]	6.1E-03	40.0	1.5E-04 [b]	1.5E-04	40.0	3.7E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.3E-04	[6]	--	4.0E-04	[7]	--	1.5E-05	[8]	--	2.2E-04	3,000	7.5E-08 [b]	6.0E-04	13,000	4.6E-08 [b]	1.5E-05	13,000	1.1E-09 [b]	--
Phenol	108-95-2	3.7E-05	[6]	--	6.2E-05	[7]	--	2.3E-06	[8]	--	3.5E-05	200	1.8E-07 [b]	9.4E-05	880	1.1E-07 [b]	2.3E-06	880	2.6E-09 [b]	--
Propionaldehyde	123-38-6	9.9E-05	[6]	--	1.7E-04	[7]	--	6.2E-06	[8]	--	9.5E-05	8.00	1.2E-05 [b]	2.5E-04	35.0	7.2E-06 [b]	6.2E-06	35.0	1.8E-07 [b]	--
MACH																				
Cumulative TEU Risk		--	--	**0.18**	--	--	**0.022**	--	--	**3.1E-04**	--	--	**0.015**	--	--	**9.7E-03**	--	--	**2.0E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**14.3**			**20.7**			**0.64**			**11.3**			**30.8**			**0.64**			--
Acetaldehyde	75-07-0	0.051	0.45	0.11 [b]	0.074	5.50	0.013 [b]	2.3E-03	12.0	1.9E-04 [b]	0.040	140	2.9E-04 [b]	0.11	620	1.8E-04 [b]	2.3E-03	620	3.7E-06 [b]	--
Acetone	67-64-1	0.017	[6]	--	0.025	[7]	--	7.8E-04	[8]	--	0.014	31,000	4.4E-07 [b]	0.037	140,000	2.7E-07 [b]	7.8E-04	140,000	5.6E-09 [b]	--
Acrolein	107-02-8	6.1E-03	[6]	--	8.8E-03	[7]	--	2.7E-04	[8]	--	4.8E-03	0.35	0.014 [b]	0.013	1.50	8.7E-03 [b]	2.7E-04	1.50	1.8E-04 [b]	--
Formaldehyde	50-00-0	0.012	0.17	0.069 [b]	0.017	2.00	8.4E-03 [b]	5.2E-04	4.30	1.2E-04 [b]	9.2E-03	9.00	1.0E-03 [b]	0.025	40.0	6.3E-04 [b]	5.2E-04	40.0	1.3E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	0.014	[6]	--	0.020	[7]	--	6.3E-04	[8]	--	0.011	3,000	3.7E-06 [b]	0.030	13,000	2.3E-06 [b]	6.3E-04	13,000	4.8E-08 [b]	--
Phenol	108-95-2	6.6E-05	[6]	--	9.6E-05	[7]	--	3.0E-06	[8]	--	5.2E-05	200	2.6E-07 [b]	1.4E-04	880	1.6E-07 [b]	3.0E-06	880	3.4E-09 [b]	--
Propionaldehyde	123-38-6	1.8E-03	[6]	--	2.7E-03	[7]	--	8.2E-05	[8]	--	1.5E-03	8.00	1.8E-04 [b]	3.9E-03	35.0	1.1E-04 [b]	8.2E-05	35.0	2.4E-06 [b]	--
RF12_RV																				
Cumulative TEU Risk		--	--	**0.024**	--	--	**3.1E-03**	--	--	**6.4E-05**	--	--	**2.3E-04**	--	--	**1.2E-04**	--	--	**3.7E-06**	--
Dispersion Factor (ug/m^3/[g/s])		**9.30**			**14.5**			**0.65**			**8.97**			**21.0**			**0.65**			--
Acetaldehyde	75-07-0	6.2E-03	0.45	0.014 [b]	9.6E-03	5.50	1.8E-03 [b]	4.3E-04	12.0	3.6E-05 [b]	6.0E-03	140	4.3E-05 [b]	0.014	620	2.3E-05 [b]	4.3E-04	620	7.0E-07 [b]	--
Acetone	67-64-1	0.020	[6]	--	0.031	[7]	--	1.4E-03	[8]	--	0.019	31,000	6.3E-07 [b]	0.046	140,000	3.3E-07 [b]	1.4E-03	140,000	1.0E-08 [b]	--
Formaldehyde	50-00-0	1.7E-03	0.17	0.010 [b]	2.7E-03	2.00	1.3E-03 [b]	1.2E-04	4.30	2.8E-05 [b]	1.7E-03	9.00	1.8E-04 [b]	3.9E-03	40.0	9.7E-05 [b]	1.2E-04	40.0	3.0E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.2E-03	[6]	--	1.9E-03	[7]	--	8.7E-05	[8]	--	1.2E-03	3,000	4.0E-07 [b]	2.8E-03	13,000	2.2E-07 [b]	8.7E-05	13,000	6.7E-09 [b]	--
Methanol	67-56-1	6.1E-03	[6]	--	9.4E-03	[7]	--	4.2E-04	[8]	--	5.8E-03	4,000	1.5E-06 [b]	0.014	18,000	7.6E-07 [b]	4.2E-04	18,000	2.3E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.2E-03	[6]	--	1.9E-03	[7]	--	8.4E-05	[8]	--	1.2E-03	5,000	2.3E-07 [b]	2.7E-03	22,000	1.2E-07 [b]	8.4E-05	22,000	3.8E-09 [b]	--
Styrene	100-42-5	8.8E-04	[6]	--	1.4E-03	[7]	--	6.1E-05	[8]	--	8.4E-04	1,000	8.4E-07 [b]	2.0E-03	4,400	4.5E-07 [b]	6.1E-05	4,400	1.4E-08 [b]	--
HPVUV_FUG																				
Cumulative TEU Risk		--	--	**0.019**	--	--	**2.5E-03**	--	--	**5.4E-05**	--	--	**2.3E-04**	--	--	**1.6E-04**	--	--	**4.8E-06**	--
Dispersion Factor (ug/m^3/[g/s])		**8.73**			**13.9**			**0.64**			**6.86**			**21.0**			**0.64**			--
Acetaldehyde	75-07-0	2.5E-03	0.45	5.6E-03 [b]	4.0E-03	5.50	7.3E-04 [b]	1.9E-04	12.0	1.6E-05 [b]	2.0E-03	140	1.4E-05 [b]	6.1E-03	620	9.8E-06 [b]	1.9E-04	620	3.0E-07 [b]	--
Acetone	67-64-1	8.7E-04	[6]	--	1.4E-03	[7]	--	6.4E-05	[8]	--	6.8E-04	31,000	2.2E-08 [b]	2.1E-03	140,000	1.5E-08 [b]	6.4E-05	140,000	4.6E-10 [b]	--
Formaldehyde	50-00-0	2.2E-03	0.17	0.013 [b]	3.5E-03	2.00	1.8E-03 [b]	1.6E-04	4.30	3.8E-05 [b]	1.7E-03	9.00	1.9E-04 [b]	5.3E-03	40.0	1.3E-04 [b]	1.6E-04	40.0	4.1E-06 [b]	--
Methanol	67-56-1	0.038	[6]	--	0.060	[7]	--	2.8E-03	[8]	--	0.030	4,000	7.5E-06 [b]	0.091	18,000	5.1E-06 [b]	2.8E-03	18,000	1.6E-07 [b]	--
Phenol	108-95-2	1.6E-03	[6]	--	2.5E-03	[7]	--	1.2E-04	[8]	--	1.2E-03	200	6.2E-06 [b]	3.8E-03	880	4.3E-06 [b]	1.2E-04	880	1.3E-07 [b]	--
Toluene	108-88-3	1.7E-04	[6]	--	2.8E-04	[7]	--	1.3E-05	[8]	--	1.4E-04	5,000	2.7E-08 [b]	4.2E-04	22,000	1.9E-08 [b]	1.3E-05	22,000	5.8E-10 [b]	--
Xylene (mixture)	1330-20-7	8.4E-04	[6]	--	1.3E-03	[7]	--	6.2E-05	[8]	--	6.6E-04	220	3.0E-06 [b]	2.0E-03	970	2.1E-06 [b]	6.2E-05	970	6.4E-08 [b]	--
o-Xylene	95-47-6	5.7E-04	[6]	--	9.0E-04	[7]	--	4.2E-05	[8]	--	4.5E-04	200	2.2E-06 [b]	1.4E-03	880	1.6E-06 [b]	4.2E-05	880	4.8E-08 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Hazard Index [3]
FORM_FUG																				
Cumulative TEU Risk		--	--	**0.027**	--	--	**3.4E-03**	--	--	**4.2E-05**	--	--	**1.3E-03**	--	--	**9.3E-04**	--	--	**1.6E-05**	--
Dispersion Factor (ug/m³/[g/s])		**15.8**			**23.8**			**0.64**			**11.7**			**36.3**			**0.64**			--
Acetaldehyde	75-07-0	5.9E-03	0.45	0.013 [b]	8.9E-03	5.50	1.6E-03 [b]	2.4E-04	12.0	2.0E-05 [b]	4.4E-03	140	3.1E-05 [b]	0.014	620	2.2E-05 [b]	2.4E-04	620	3.9E-07 [b]	--
Acetone	67-64-1	2.6E-03	[6]	--	3.9E-03	[7]	--	1.1E-04	[8]	--	1.9E-03	31,000	6.2E-08 [b]	6.0E-03	140,000	4.3E-08 [b]	1.1E-04	140,000	7.6E-10 [b]	--
Acrolein	107-02-8	5.0E-04	[6]	--	7.6E-04	[7]	--	2.0E-05	[8]	--	3.7E-04	0.35	1.1E-03 [b]	1.2E-03	1.50	7.7E-04 [b]	2.0E-05	1.50	1.4E-05 [b]	--
Formaldehyde	50-00-0	2.3E-03	0.17	0.014 [b]	3.5E-03	2.00	1.8E-03 [b]	9.6E-05	4.30	2.2E-05 [b]	1.7E-03	9.00	1.9E-04 [b]	5.4E-03	40.0	1.4E-04 [b]	9.6E-05	40.0	2.4E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.9E-04	[6]	--	2.8E-04	[7]	--	7.6E-06	[8]	--	1.4E-04	3,000	4.6E-08 [b]	4.3E-04	13,000	3.3E-08 [b]	7.6E-06	13,000	5.9E-10 [b]	--
Methanol	67-56-1	0.013	[6]	--	0.020	[7]	--	5.5E-04	[8]	--	9.9E-03	4,000	2.5E-06 [b]	0.031	18,000	1.7E-06 [b]	5.5E-04	18,000	3.0E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	3.7E-04	[6]	--	5.5E-04	[7]	--	1.5E-05	[8]	--	2.7E-04	5,000	5.4E-08 [b]	8.5E-04	22,000	3.8E-08 [b]	1.5E-05	22,000	6.8E-10 [b]	--
Toluene	108-88-3	3.7E-04	[6]	--	5.6E-04	[7]	--	1.5E-05	[8]	--	2.7E-04	5,000	5.5E-08 [b]	8.5E-04	22,000	3.9E-08 [b]	1.5E-05	22,000	6.8E-10 [b]	--
GAS																				
Cumulative TEU Risk		--	--	**0.018**	--	--	**3.8E-03**	--	--	**1.1E-05**	--	--	**9.8E-05**	--	--	**1.3E-03**	--	--	**2.7E-06**	--
Dispersion Factor (ug/m³/[g/s])		**43.3**			**109**			**0.66**			**5.59**			**329**			**0.66**			--
Benzene	71-43-2	2.3E-03	0.13	0.017 [b]	5.7E-03	1.50	3.8E-03 [b]	3.4E-05	3.30	1.0E-05 [b]	2.9E-04	3.00	9.7E-05 [b]	0.017	13.0	1.3E-03 [b]	3.4E-05	13.0	2.7E-06 [b]	--
Ethyl benzene	100-41-4	9.9E-05	0.40	2.5E-04 [b]	2.5E-04	4.80	5.2E-05 [b]	1.5E-06	10.0	1.5E-07 [b]	1.3E-05	260	4.9E-08 [b]	7.6E-04	1,100	6.9E-07 [b]	1.5E-06	1,100	1.4E-09 [b]	--
Isopropylbenzene (Cumene)	98-82-8	5.2E-06	[6]	--	1.3E-05	[7]	--	8.0E-08	[8]	--	6.7E-07	400	1.7E-09 [b]	4.0E-05	1,800	2.2E-08 [b]	8.0E-08	1,800	4.4E-11 [b]	--
1,3,5-Trimethylbenzene	108-67-8	3.1E-05	[6]	--	7.8E-05	[7]	--	4.7E-07	[8]	--	4.0E-06	60.0	6.6E-08 [b]	2.3E-04	260	9.0E-07 [b]	4.7E-07	260	1.8E-09 [b]	--
1,2,3-Trimethylbenzene	526-73-8	1.8E-05	[6]	--	4.5E-05	[7]	--	2.8E-07	[8]	--	2.3E-06	60.0	3.9E-08 [b]	1.4E-04	260	5.3E-07 [b]	2.8E-07	260	1.1E-09 [b]	--
Cyclohexane	110-82-7	3.7E-03	[6]	--	9.4E-03	[7]	--	5.7E-05	[8]	--	4.8E-04	6,000	8.0E-08 [b]	0.028	26,000	1.1E-06 [b]	5.7E-05	26,000	2.2E-09 [b]	--
1,2,4-Trimethyl benzene	95-63-6	6.7E-05	[6]	--	1.7E-04	[7]	--	1.0E-06	[8]	--	8.7E-06	60.0	1.4E-07 [b]	5.1E-04	260	2.0E-06 [b]	1.0E-06	260	4.0E-09 [b]	--
Styrene	100-42-5	2.9E-07	[6]	--	7.2E-07	[7]	--	4.4E-09	[8]	--	3.7E-08	1,000	3.7E-11 [b]	2.2E-06	4,400	4.9E-10 [b]	4.4E-09	4,400	9.9E-13 [b]	--
Toluene	108-88-3	1.6E-03	[6]	--	4.0E-03	[7]	--	2.4E-05	[8]	--	2.1E-04	5,000	4.1E-08 [b]	0.012	22,000	5.5E-07 [b]	2.4E-05	22,000	1.1E-09 [b]	--
p-Xylene	106-42-3	2.8E-04	[6]	--	7.0E-04	[7]	--	4.2E-06	[8]	--	3.6E-05	200	1.8E-07 [b]	2.1E-03	880	2.4E-06 [b]	4.2E-06	880	4.8E-09 [b]	--
o-Xylene	95-47-6	1.0E-04	[6]	--	2.6E-04	[7]	--	1.6E-06	[8]	--	1.3E-05	200	6.6E-08 [b]	7.8E-04	880	8.8E-07 [b]	1.6E-06	880	1.8E-09 [b]	--
Naphthalene	91-20-3	1.6E-06	0.029	5.7E-05 [b]	4.1E-06	0.35	1.2E-05 [b]	2.5E-08	0.76	3.3E-08 [b]	2.1E-07	3.70	5.7E-08 [b]	1.3E-05	16.0	7.8E-07 [b]	2.5E-08	16.0	1.6E-09 [b]	--
RESIN1																				
Cumulative TEU Risk		--	--	**0.026**	--	--	**3.3E-03**	--	--	**7.6E-05**	--	--	**5.2E-04**	--	--	**2.4E-04**	--	--	**8.2E-06**	--
Dispersion Factor (ug/m³/[g/s])		**8.61**			**13.2**			**0.65**			**9.17**			**18.8**			**0.65**			--
Formaldehyde	50-00-0	4.4E-03	0.17	0.026 [b]	6.7E-03	2.00	3.3E-03 [b]	3.3E-04	4.30	7.6E-05 [b]	4.6E-03	9.00	5.2E-04 [b]	9.5E-03	40.0	2.4E-04 [b]	3.3E-04	40.0	8.2E-06 [b]	--
Methanol	67-56-1	4.3E-04	[6]	--	6.6E-04	[7]	--	3.3E-05	[8]	--	4.6E-04	4,000	1.2E-07 [b]	9.5E-04	18,000	5.3E-08 [b]	3.3E-05	18,000	1.8E-09 [b]	--
Phenol	108-95-2	3.0E-07	[6]	--	4.6E-07	[7]	--	2.2E-08	[8]	--	3.2E-07	200	1.6E-09 [b]	6.5E-07	880	7.4E-10 [b]	2.2E-08	880	2.5E-11 [b]	--
RESIN2																				
Cumulative TEU Risk		--	--	**0.028**	--	--	**3.6E-03**	--	--	**8.2E-05**	--	--	**5.5E-04**	--	--	**2.5E-04**	--	--	**8.8E-06**	--
Dispersion Factor (ug/m³/[g/s])		**8.66**			**13.2**			**0.65**			**9.07**			**18.8**			**0.65**			--
Formaldehyde	50-00-0	4.7E-03	0.17	0.028 [b]	7.2E-03	2.00	3.6E-03 [b]	3.5E-04	4.30	8.2E-05 [b]	4.9E-03	9.00	5.5E-04 [b]	0.010	40.0	2.5E-04 [b]	3.5E-04	40.0	8.8E-06 [b]	--
Methanol	67-56-1	4.7E-04	[6]	--	7.1E-04	[7]	--	3.5E-05	[8]	--	4.9E-04	4,000	1.2E-07 [b]	1.0E-03	18,000	5.6E-08 [b]	3.5E-05	18,000	1.9E-09 [b]	--
Phenol	108-95-2	3.2E-07	[6]	--	4.9E-07	[7]	--	2.4E-08	[8]	--	3.4E-07	200	1.7E-09 [b]	7.0E-07	880	7.9E-10 [b]	2.4E-08	880	2.7E-11 [b]	--
RESIN3																				
Cumulative TEU Risk		--	--	**0.028**	--	--	**3.6E-03**	--	--	**8.2E-05**	--	--	**5.4E-04**	--	--	**2.5E-04**	--	--	**8.8E-06**	--
Dispersion Factor (ug/m³/[g/s])		**8.71**			**13.2**			**0.65**			**8.97**			**18.7**			**0.65**			--
Formaldehyde	50-00-0	4.7E-03	0.17	0.028 [b]	7.2E-03	2.00	3.6E-03 [b]	3.5E-04	4.30	8.2E-05 [b]	4.9E-03	9.00	5.4E-04 [b]	0.010	40.0	2.5E-04 [b]	3.5E-04	40.0	8.8E-06 [b]	--
Methanol	67-56-1	4.7E-04	[6]	--	7.1E-04	[7]	--	3.5E-05	[8]	--	4.9E-04	4,000	1.2E-07 [b]	1.0E-03	18,000	5.6E-08 [b]	3.5E-05	18,000	1.9E-09 [b]	--
Phenol	108-95-2	3.2E-07	[6]	--	4.9E-07	[7]	--	2.4E-08	[8]	--	3.3E-07	200	1.7E-09 [b]	6.9E-07	880	7.9E-10 [b]	2.4E-08	880	2.7E-11 [b]	--
PAINT																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**1.2E-04**	--	--	**3.0E-04**	--	--	**2.6E-06**	--
Dispersion Factor (ug/m³/[g/s])		**25.2**			**39.9**			**0.66**			**7.08**			**74.3**			**0.66**			--
Ethylene glycol monobutyl ether	111-76-2	0.036	[6]	--	0.057	[7]	--	9.4E-04	[8]	--	0.010	82.0	1.2E-04 [b]	0.11	360	3.0E-04 [b]	9.4E-04	360	2.6E-06 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Hazard Index	Calculated Conc. (a) (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. (a) (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index (3)
LSP																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**0**	--	--	**0**	--	--	**0**	--
Dispersion Factor (ug/m^3/[g/s])		**34.0**			**72.4**			**0.64**			**11.1**			**101**			**0.64**			--
Dipropylene glycol monomethyl ether	34590-94-8	1.21	(6)	--	2.57	(7)	--	0.023	(8)	--	0.39	(9)	-- (b)	3.59	(10)	-- (b)	0.023	(11)	-- (b)	--
WELD																				
Cumulative TEU Risk		--	--	**0.016**	--	--	**7.6E-04**	--	--	**4.1E-05**	--	--	**4.9E-04**	--	--	**4.6E-04**	--	--	**9.7E-06**	--
Dispersion Factor (ug/m^3/[g/s])		**15.2**			**21.9**			**0.67**			**7.40**			**31.3**			**0.67**			--
Chromium VI	18540-29-9	4.7E-07	3.1E-05	0.015 (b)	6.7E-07	1.0E-03	6.7E-04 (b)	2.0E-08	5.2E-04	3.9E-05 (b)	2.3E-07	0.083	2.7E-06 (b)	9.6E-07	0.88	1.1E-06 (b)	2.0E-08	0.88	2.3E-08 (b)	--
Cobalt and compounds	7440-48-4	5.7E-08	(6)	--	8.2E-08	(7)	--	2.5E-09	(8)	--	2.8E-08	0.10	2.8E-07 (b)	1.2E-07	0.44	2.7E-07 (b)	2.5E-09	0.44	5.7E-09 (b)	--
Aluminum and compounds	7429-90-5	3.3E-04	(6)	--	4.8E-04	(7)	--	1.5E-05	(8)	--	1.6E-04	5.00	3.2E-05 (b)	6.8E-04	22.0	3.1E-05 (b)	1.5E-05	22.0	6.6E-07 (b)	--
Copper and compounds	7440-50-8	3.4E-07	(6)	--	4.9E-07	(7)	--	1.5E-08	(8)	--	1.7E-07	(9)	-- (b)	7.0E-07	(10)	-- (b)	1.5E-08	(11)	-- (b)	--
Manganese and compounds	7439-96-5	6.3E-05	(6)	--	9.0E-05	(7)	--	2.7E-06	(8)	--	3.1E-05	0.090	3.4E-04 (b)	1.3E-04	0.40	3.2E-04 (b)	2.7E-06	0.40	6.9E-06 (b)	--
Nickel and compounds	365	2.9E-06	3.8E-03	7.7E-04 (b)	4.2E-06	0.046	9.1E-05 (b)	1.3E-07	0.10	1.3E-06 (b)	1.4E-06	0.014	1.0E-04 (b)	6.0E-06	0.062	9.7E-05 (b)	1.3E-07	0.062	2.1E-06 (b)	--
Fluorides	239	5.2E-05	(6)	--	7.5E-05	(7)	--	2.3E-06	(8)	--	2.5E-05	2.30	1.1E-05 (b)	1.1E-04	20.0	5.4E-06 (b)	2.3E-06	20.0	1.1E-07 (b)	--
BPOT																				
Cumulative TEU Risk		--	--	**9.7E-05**	--	--	**1.4E-05**	--	--	**2.0E-07**	--	--	**5.5E-05**	--	--	**2.1E-05**	--	--	**4.7E-07**	--
Dispersion Factor (ug/m^3/[g/s])		**11.4**			**19.9**			**0.61**			**16.1**			**27.1**			**0.61**			--
Antimony and compounds	7440-36-0	3.7E-06	(6)	--	6.4E-06	(7)	--	2.0E-07	(8)	--	5.2E-06	0.30	1.7E-05 (b)	8.8E-06	1.30	6.8E-06 (b)	2.0E-07	1.30	1.5E-07 (b)	--
Copper and compounds	7440-50-8	3.7E-06	(6)	--	6.4E-06	(7)	--	2.0E-07	(8)	--	5.2E-06	(9)	-- (b)	8.8E-06	(10)	-- (b)	2.0E-07	(11)	-- (b)	--
Nickel and compounds	365	3.7E-07	3.8E-03	9.7E-05 (b)	6.4E-07	0.046	1.4E-05 (b)	2.0E-08	0.10	2.0E-07 (b)	5.2E-07	0.014	3.7E-05 (b)	8.8E-07	0.062	1.4E-05 (b)	2.0E-08	0.062	3.2E-07 (b)	--
SCR_HYDRO																				
Cumulative TEU Risk		--	--	**3.9E-04**	--	--	**4.9E-05**	--	--	**9.5E-07**	--	--	**3.9E-03**	--	--	**1.6E-03**	--	--	**4.6E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**10.0**			**15.5**			**0.65**			**12.9**			**22.2**			**0.65**			--
Acetaldehyde	75-07-0	1.5E-04	0.45	3.4E-04 (b)	2.4E-04	5.50	4.3E-05 (b)	9.9E-06	12.0	8.3E-07 (b)	2.0E-04	140	1.4E-06 (b)	3.4E-04	620	5.5E-07 (b)	9.9E-06	620	1.6E-08 (b)	--
Acetone	67-64-1	3.9E-04	(6)	--	6.1E-04	(7)	--	2.6E-05	(8)	--	5.1E-04	31,000	1.6E-08 (b)	8.7E-04	140,000	6.2E-09 (b)	2.6E-05	140,000	1.8E-10 (b)	--
Acrolein	107-02-8	1.0E-03	(6)	--	1.6E-03	(7)	--	6.7E-05	(8)	--	1.3E-03	0.35	3.8E-03 (b)	2.3E-03	1.50	1.5E-03 (b)	6.7E-05	1.50	4.5E-05 (b)	--
Formaldehyde	50-00-0	7.7E-06	0.17	4.5E-05 (b)	1.2E-05	2.00	6.0E-06 (b)	5.0E-07	4.30	1.2E-07 (b)	9.9E-06	9.00	1.1E-06 (b)	1.7E-05	40.0	4.3E-07 (b)	5.0E-07	40.0	1.3E-08 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	3.5E-05	(6)	--	5.5E-05	(7)	--	2.3E-06	(8)	--	4.5E-05	3,000	1.5E-08 (b)	7.8E-05	13,000	6.0E-09 (b)	2.3E-06	13,000	1.8E-10 (b)	--
Phenol	108-95-2	2.2E-06	(6)	--	3.5E-06	(7)	--	1.5E-07	(8)	--	2.9E-06	200	1.4E-08 (b)	5.0E-06	880	5.6E-09 (b)	1.5E-07	880	1.7E-10 (b)	--
Propionaldehyde	123-38-6	4.5E-04	(6)	--	7.0E-04	(7)	--	2.9E-05	(8)	--	5.8E-04	8.00	7.3E-05 (b)	1.0E-03	35.0	2.9E-05 (b)	2.9E-05	35.0	8.4E-07 (b)	--
HYDRO																				
Cumulative TEU Risk		--	--	**0.041**	--	--	**4.8E-03**	--	--	**1.0E-04**	--	--	**2.9E-04**	--	--	**1.3E-04**	--	--	**4.4E-06**	--
Dispersion Factor (ug/m^3/[g/s])		**9.99**			**14.2**			**0.67**			**10.1**			**20.2**			**0.67**			--
Acetaldehyde	75-07-0	0.016	0.45	0.036 (b)	0.023	5.50	4.2E-03 (b)	1.1E-03	12.0	9.0E-05 (b)	0.016	140	1.2E-04 (b)	0.033	620	5.2E-05 (b)	1.1E-03	620	1.7E-06 (b)	--
Acetone	67-64-1	1.9E-03	(6)	--	2.7E-03	(7)	--	1.3E-04	(8)	--	1.9E-03	31,000	6.2E-08 (b)	3.9E-03	140,000	2.8E-08 (b)	1.3E-04	140,000	9.2E-10 (b)	--
Acrolein	107-02-8	1.6E-22	(6)	--	2.3E-22	(7)	--	1.1E-23	(8)	--	1.6E-22	0.35	4.6E-22 (b)	3.3E-22	1.50	2.2E-22 (b)	1.1E-23	1.50	7.2E-24 (b)	--
Formaldehyde	50-00-0	8.7E-04	0.17	5.1E-03 (b)	1.2E-03	2.00	6.2E-04 (b)	5.9E-05	4.30	1.4E-05 (b)	8.8E-04	9.00	9.8E-05 (b)	1.8E-03	40.0	4.4E-05 (b)	5.9E-05	40.0	1.5E-06 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	7.3E-03	(6)	--	0.010	(7)	--	4.9E-04	(8)	--	7.3E-03	3,000	2.4E-06 (b)	0.015	13,000	1.1E-06 (b)	4.9E-04	13,000	3.8E-08 (b)	--
Phenol	108-95-2	2.3E-05	(6)	--	3.2E-05	(7)	--	1.5E-06	(8)	--	2.3E-05	200	1.2E-07 (b)	4.6E-05	880	5.3E-08 (b)	1.5E-06	880	1.7E-09 (b)	--
Propionaldehyde	123-38-6	5.9E-04	(6)	--	8.4E-04	(7)	--	4.0E-05	(8)	--	6.0E-04	8.00	7.4E-05 (b)	1.2E-03	35.0	3.4E-05 (b)	4.0E-05	35.0	1.1E-06 (b)	--
CLAR																				
Cumulative TEU Risk		--	--	**3.5E-05**	--	--	**5.2E-06**	--	--	**1.7E-07**	--	--	**8.9E-08**	--	--	**1.2E-07**	--	--	**8.3E-09**	--
Dispersion Factor (ug/m^3/[g/s])		**6.04**			**10.9**			**0.77**			**1.85**			**11.1**			**0.77**			--
Acetaldehyde	75-07-0	1.2E-05	0.45	2.6E-05 (b)	2.1E-05	5.50	3.8E-06 (b)	1.5E-06	12.0	1.2E-07 (b)	3.5E-06	140	2.5E-08 (b)	2.1E-05	620	3.4E-08 (b)	1.5E-06	620	2.4E-09 (b)	--
Acetone	67-64-1	6.5E-08	(6)	--	1.2E-07	(7)	--	8.3E-09	(8)	--	2.0E-08	31,000	6.5E-13 (b)	1.2E-07	140,000	8.6E-13 (b)	8.3E-09	140,000	5.9E-14 (b)	--
Acrolein	107-02-8	3.1E-26	(6)	--	5.6E-26	(7)	--	4.0E-27	(8)	--	9.6E-27	0.35	2.7E-26 (b)	5.8E-26	1.50	3.8E-26 (b)	4.0E-27	1.50	2.6E-27 (b)	--
Formaldehyde	50-00-0	1.5E-06	0.17	9.0E-06 (b)	2.8E-06	2.00	1.4E-06 (b)	1.9E-07	4.30	4.5E-08 (b)	4.7E-07	9.00	5.2E-08 (b)	2.8E-06	40.0	7.1E-08 (b)	1.9E-07	40.0	4.9E-09 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.6E-07	(6)	--	4.7E-07	(7)	--	3.3E-08	(8)	--	8.0E-08	3,000	2.7E-11 (b)	4.8E-07	13,000	3.7E-11 (b)	3.3E-08	13,000	2.6E-12 (b)	--
Phenol	108-95-2	2.4E-12	(6)	--	4.4E-12	(7)	--	3.1E-13	(8)	--	7.4E-13	200	3.7E-15 (b)	4.4E-12	880	5.0E-15 (b)	3.1E-13	880	3.5E-16 (b)	--
Propionaldehyde	123-38-6	3.0E-07	(6)	--	5.4E-07	(7)	--	3.8E-08	(8)	--	9.1E-08	8.00	1.1E-08 (b)	5.5E-07	35.0	1.6E-08 (b)	3.8E-08	35.0	1.1E-09 (b)	--
PIT																				
Cumulative TEU Risk		--	--	**7.6E-08**	--	--	**1.1E-08**	--	--	**3.6E-10**	--	--	**1.5E-10**	--	--	**2.1E-10**	--	--	**1.4E-11**	--
Dispersion Factor (ug/m^3/[g/s])		**6.11**			**11.1**			**0.76**			**1.89**			**11.2**			**0.76**			--
Acetaldehyde	75-07-0	2.9E-08	0.45	6.5E-08 (b)	5.3E-08	5.50	9.6E-09 (b)	3.6E-09	12.0	3.0E-10 (b)	9.1E-09	140	6.5E-11 (b)	5.3E-08	620	8.6E-11 (b)	3.6E-09	620	5.9E-12 (b)	--
Acetone	67-64-1	2.1E-23	(6)	--	3.7E-23	(7)	--	2.6E-24	(8)	--	6.4E-24	31,000	2.1E-28 (b)	3.8E-23	140,000	2.7E-28 (b)	2.6E-24	140,000	1.8E-29 (b)	--
Acrolein	107-02-8	5.2E-24	(6)	--	9.5E-24	(7)	--	6.6E-25	(8)	--	1.6E-24	0.35	4.6E-24 (b)	9.6E-24	1.50	6.4E-24 (b)	6.6E-25	1.50	4.4E-25 (b)	--
Formaldehyde	50-00-0	1.9E-09	0.17	1.1E-08 (b)	3.4E-09	2.00	1.7E-09 (b)	2.4E-10	4.30	5.5E-11 (b)	5.9E-10	9.00	6.5E-11 (b)	3.5E-09	40.0	8.6E-11 (b)	2.4E-10	40.0	5.9E-12 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.6E-09	(6)	--	2.9E-09	(7)	--	2.0E-10	(8)	--	4.9E-10	3,000	1.6E-13 (b)	2.9E-09	13,000	2.2E-13 (b)	2.0E-10	13,000	1.5E-14 (b)	--
Phenol	108-95-2	1.7E-15	(6)	--	3.1E-15	(7)	--	2.1E-16	(8)	--	5.3E-16	200	2.6E-18 (b)	3.1E-15	880	3.5E-18 (b)	2.1E-16	880	2.4E-19 (b)	--
Propionaldehyde	123-38-6	6.4E-10	(6)	--	1.2E-09	(7)	--	7.9E-11	(8)	--	2.0E-10	8.00	2.5E-11 (b)	1.2E-09	35.0	3.3E-11 (b)	7.9E-11	35.0	2.3E-12 (b)	--
S_POND																				
Cumulative TEU Risk		--	--	**8.7E-06**	--	--	**1.4E-06**	--	--	**3.6E-08**	--	--	**2.7E-08**	--	--	**3.6E-08**	--	--	**2.2E-09**	--
Dispersion Factor (ug/m^3/[g/s])		**7.07**			**13.3**			**0.77**			**2.15**			**12.8**			**0.77**			--
Acetaldehyde	75-07-0	2.4E-06	0.45	5.3E-06 (b)	4.5E-06	5.50	8.2E-07 (b)	2.6E-07	12.0	2.2E-08 (b)	7.3E-07	140	5.2E-09 (b)	4.3E-06	620	7.0E-09 (b)	2.6E-07	620	4.2E-10 (b)	--
Acetone	67-64-1	3.0E-09	(6)	--	5.7E-09	(7)	--	3.3E-10	(8)	--	9.2E-10	31,000	3.0E-14 (b)	5.5E-09	140,000	3.9E-14 (b)	3.3E-10	140,000	2.3E-15 (b)	--
Acrolein	107-02-8	2.0E-22	(6)	--	3.8E-22	(7)	--	2.2E-23	(8)	--	6.1E-23	0.35	1.7E-22 (b)	3.6E-22	1.50	2.4E-22 (b)	2.2E-23	1.50	1.5E-23 (b)	--
Formaldehyde	50-00-0	5.8E-07	0.17	3.4E-06 (b)	1.1E-06	2.00	5.4E-07 (b)	6.3E-08	4.30	1.5E-08 (b)	1.7E-07	9.00	1.9E-08 (b)	1.0E-06	40.0	2.6E-08 (b)	6.3E-08	40.0	1.6E-09 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.1E-08	(6)	--	4.0E-08	(7)	--	2.3E-09	(8)	--	6.4E-09	3,000	2.1E-12 (b)	3.8E-08	13,000	2.9E-12 (b)	2.3E-09	13,000	1.8E-13 (b)	--
Phenol	108-95-2	1.3E-14	(6)	--	2.4E-14	(7)	--	1.4E-15	(8)	--	3.9E-15	200	2.0E-17 (b)	2.3E-14	880	2.7E-17 (b)	1.4E-15	880	1.6E-18 (b)	--
Propionaldehyde	123-38-6	5.5E-08	(6)	--	1.0E-07	(7)	--	5.9E-09	(8)	--	1.7E-08	8.00	2.1E-09 (b)	9.9E-08	35.0	2.8E-09 (b)	5.9E-09	35.0	1.7E-10 (b)	--
R_POND																				
Cumulative TEU Risk		--	--	**7.4E-06**	--	--	**1.3E-06**	--	--	**2.3E-08**	--	--	**2.3E-08**	--	--	**4.0E-08**	--	--	**1.5E-09**	--
Dispersion Factor (ug/m^3/[g/s])		**9.40**			**20.5**			**0.75**			**2.49**			**19.6**			**0.75**			--
Acetaldehyde	75-07-0	1.7E-06	0.45	3.7E-06 (b)	3.6E-06	5.50	6.6E-07 (b)	1.3E-07	12.0	1.1E-08 (b)	4.4E-07	140	3.2E-09 (b)	3.5E-06	620	5.6E-09 (b)	1.3E-07	620	2.2E-10 (b)	--
Acetone	67-64-1	7.6E-10	(6)	--	1.7E-09	(7)	--	6.0E-11	(8)	--	2.0E-10	31,000	6.5E-15 (b)	1.6E-09	140,000	1.1E-14 (b)	6.0E-11	140,000	4.3E-16 (b)	--
Acrolein	107-02-8	1.0E-22	(6)	--	2.3E-22	(7)	--	8.2E-24	(8)	--	2.7E-23	0.35	7.8E-23 (b)	2.2E-22	1.50	1.4E-22 (b)	8.2E-24	1.50	5.5E-24 (b)	--
Formaldehyde	50-00-0	6.3E-07	0.17	3.7E-06 (b)	1.4E-06	2.00	6.8E-07 (b)	5.0E-08	4.30	1.2E-08 (b)	1.7E-07	9.00	1.8E-08 (b)	1.3E-06	40.0	3.3E-08 (b)	5.0E-08	40.0	1.2E-09 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	8.6E-09	(6)	--	1.9E-08	(7)	--	6.8E-10	(8)	--	2.3E-09	3,000	7.6E-13 (b)	1.8E-08	13,000	1.4E-12 (b)	6.8E-10	13,000	5.3E-14 (b)	--
Phenol	108-95-2	4.3E-16	(6)	--	9.4E-16	(7)	--	3.5E-17	(8)	--	1.1E-16	200	5.7E-19 (b)	9.0E-16	880	1.0E-18 (b)	3.5E-17	880	3.9E-20 (b)	--
Propionaldehyde	123-38-6	3.6E-08	(6)	--	7.7E-08	(7)	--	2.8E-09	(8)	--	9.4E-09	8.00	1.2E-09 (b)	7.4E-08	35.0	2.1E-09 (b)	2.8E-09	35.0	8.1E-11 (b)	--
E_POND																				
Cumulative TEU Risk		--	--	**1.8E-06**	--	--	**2.0E-07**	--	--	**3.7E-08**	--	--	**2.1E-08**	--	--	**6.2E-09**	--	--	**2.4E-09**	--
Dispersion Factor (ug/m^3/[g/s])		**1.72**			**2.29**			**0.91**			**1.72**			**2.31**			**0.91**			--
Acetaldehyde	75-07-0	4.2E-07	0.45	9.3E-07 (b)	5.6E-07	5.50	1.0E-07 (b)	2.2E-07	12.0	1.8E-08 (b)	4.2E-07	140	3.0E-09 (b)	5.6E-07	620	9.1E-10 (b)	2.2E-07	620	3.6E-10 (b)	--
Acetone	67-64-1	1.6E-10	(6)	--	2.1E-10	(7)	--	8.2E-11	(8)	--	1.6E-10	31,000	5.0E-15 (b)	2.1E-10	140,000	1.5E-15 (b)	8.2E-11	140,000	5.9E-16 (b)	--
Acrolein	107-02-8	2.4E-23	(6)	--	3.2E-23	(7)	--	1.3E-23	(8)	--	2.4E-23	0.35	6.9E-23 (b)	3.2E-23	1.50	2.2E-23 (b)	1.3E-23	1.50	8.5E-24 (b)	--
Formaldehyde	50-00-0	1.5E-07	0.17	8.7E-07 (b)	2.0E-07	2.00	9.8E-08 (b)	7.8E-08	4.30	1.8E-08 (b)	1.5E-07	9.00	1.6E-08 (b)	2.0E-07	40.0	5.0E-09 (b)	7.8E-08	40.0	2.0E-09 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.0E-09	(6)	--	2.7E-09	(7)	--	1.1E-09	(8)	--	2.0E-09	3,000	6.7E-13 (b)	2.7E-09	13,000	2.1E-13 (b)	1.1E-09	13,000	8.1E-14 (b)	--
Phenol	108-95-2	9.3E-17	(6)	--	1.2E-16	(7)	--	4.9E-17	(8)	--	9.3E-17	200	4.6E-19 (b)	1.2E-16	880	1.4E-19 (b)	4.9E-17	880	5.6E-20 (b)	--
Propionaldehyde	123-38-6	8.8E-09	(6)	--	1.2E-08	(7)	--	4.6E-09	(8)	--	8.8E-09	8.00	1.1E-09 (b)	1.2E-08	35.0	3.4E-10 (b)	4.6E-09	35.0	1.3E-10 (b)	--
SURGE																				
Cumulative TEU Risk		--	--	**0.11**	--	--	**0.018**	--	--	**3.8E-04**	--	--	**3.8E-04**	--	--	**5.6E-04**	--	--	**2.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**8.45**			**16.9**			**0.75**			**2.45**			**15.9**			**0.75**			--
Acetaldehyde	75-07-0	0.025	0.45	0.054 (b)	0.049	5.50	8.9E-03 (b)	2.2E-03	12.0	1.8E-04 (b)	7.1E-03	140	5.1E-05 (b)	0.046	620	7.5E-05 (b)	2.2E-03	620	3.5E-06 (b)	--
Acetone	67-64-1	9.4E-04	(6)	--	1.9E-03	(7)	--	8.4E-05	(8)	--	2.7E-04	31,000	8.8E-09 (b)	1.8E-03	140,000	1.3E-08 (b)	8.4E-05	140,000	6.0E-10 (b)	--
Acrolein	107-02-8	1.1E-22	(6)	--	2.2E-22	(7)	--	9.8E-24	(8)	--	3.2E-23	0.35	9.1E-23 (b)	2.1E-22	1.50	1.4E-22 (b)	9.8E-24	1.50	6.5E-24 (b)	--
Formaldehyde	50-00-0	9.4E-03	0.17	0.055 (b)	0.019	2.00	9.4E-03 (b)	8.4E-04	4.30	1.9E-04 (b)	2.7E-03	9.00	3.0E-04 (b)	0.018	40.0	4.4E-04 (b)	8.4E-04	40.0	2.1E-05 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	9.5E-04	(6)	--	1.9E-03	(7)	--	8.4E-05	(8)	--	2.7E-04	3,000	9.2E-08 (b)	1.8E-03	13,000	1.4E-07 (b)	8.4E-05	13,000	6.5E-09 (b)	--
Phenol	108-95-2	7.4E-07	(6)	--	1.5E-06	(7)	--	6.6E-08	(8)	--	2.1E-07	200	1.1E-09 (b)	1.4E-06	880	1.6E-09 (b)	6.6E-08	880	7.5E-11 (b)	--
Propionaldehyde	123-38-6	8.2E-04	(6)	--	1.6E-03	(7)	--	7.3E-05	(8)	--	2.4E-04	8.00	3.0E-05 (b)	1.5E-03	35.0	4.4E-05 (b)	7.3E-05	35.0	2.1E-06 (b)	--
ABASE																				
Cumulative TEU Risk		--	--	**2.9E-03**	--	--	**4.5E-04**	--	--	**1.0E-05**	--	--	**6.8E-06**	--	--	**1.1E-05**	--	--	**5.0E-07**	--
Dispersion Factor (ug/m^3/[g/s])		**7.92**			**15.2**			**0.76**			**2.31**			**16.2**			**0.76**			--
Acetaldehyde	75-07-0	9.6E-04	0.45	2.1E-03 (b)	1.8E-03	5.50	3.4E-04 (b)	9.1E-05	12.0	7.6E-06 (b)	2.8E-04	140	2.0E-06 (b)	2.0E-03	620	3.2E-06 (b)	9.1E-05	620	1.5E-07 (b)	--
Acetone	67-64-1	4.4E-06	(6)	--	8.5E-06	(7)	--	4.2E-07	(8)	--	1.3E-06	31,000	4.2E-11 (b)	9.1E-06	140,000	6.5E-11 (b)	4.2E-07	140,000	3.0E-12 (b)	--
Acrolein	107-02-8	2.9E-24	(6)	--	5.6E-24	(7)	--	2.8E-25	(8)	--	8.5E-25	0.35	2.4E-24 (b)	6.0E-24	1.50	4.0E-24 (b)	2.8E-25	1.50	1.9E-25 (b)	--
Formaldehyde	50-00-0	1.2E-04	0.17	7.2E-04 (b)	2.4E-04	2.00	1.2E-04 (b)	1.2E-05	4.30	2.7E-06 (b)	3.6E-05	9.00	4.0E-06 (b)	2.5E-04	40.0	6.3E-06 (b)	1.2E-05	40.0	2.9E-07 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	5.1E-05	(6)	--	9.8E-05	(7)	--	4.9E-06	(8)	--	1.5E-05	3,000	4.9E-09 (b)	1.0E-04	13,000	8.0E-09 (b)	4.9E-06	13,000	3.7E-10 (b)	--
Phenol	108-95-2	1.6E-10	(6)	--	3.0E-10	(7)	--	1.5E-11	(8)	--	4.5E-11	200	2.3E-13 (b)	3.2E-10	880	3.6E-13 (b)	1.5E-11	880	1.7E-14 (b)	--
Propionaldehyde	123-38-6	2.3E-05	(6)	--	4.3E-05	(7)	--	2.2E-06	(8)	--	6.6E-06	8.00	8.2E-07 (b)	4.6E-05	35.0	1.3E-06 (b)	2.2E-06	35.0	6.2E-08 (b)	--

Notes

lb = pound; yr = year; ug = microgram; m^3 = cubic meter; RBC = risk-based concentration; TAC = toxic air contaminant.

(a) Calculated concentration (ug/m^3) = (dispersion factor [{ug/m^3}/{g/s}]) x (TAC emission rate per TEU [g/s])

TAC emission rate per TEU (g/s) = (1)

(b) Chronic (cancer/noncancer) risk = (annual concentration [ug/m^3]) / (RBC cancer or noncancer [ug/m3])

References

(1) See Table 4-2, Annual TAC Emission Rates.

(2) OAR 340-245-8010, Table 2.

(3) Represents highest modeled acute risk using the risk equivalent emission rates shown in Table 4-4.

(4) See Table 8-2, Maximum Predicted Risk Exposure Location per Significant TEU (MC SU Scenario).

(5) Risk comparison value is the facility total risk rounded in accordance with OAR 340-245-0020(4)(a)(A).

(6) This TAC does not have a residential cancer RBC listed in OAR 340-245-8010, Table 2.

(7) This TAC does not have a worker cancer RBC listed in OAR 340-245-8010, Table 2.

(8) This TAC does not have a child cancer RBC listed in OAR 340-245-8010, Table 2.

(9) This TAC does not have a residential noncancer RBC listed in OAR 340-245-8010, Table 2.

(10) This TAC does not have a worker noncancer RBC listed in OAR 340-245-8010, Table 2.

(11) This TAC does not have a child noncancer RBC listed in OAR 340-245-8010, Table 2.

Table 8-5
Level 3 Risk Assessment Results for Significant TEUs (Scrubber SU Scenario)
Stimson Lumber Company Forest Grove Complex—Gaston, Oregon

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
Exposure Location [4]			**2,631**			**14,831**			**1**			**2,631**			**14,702**			**1**		--
Cumulative Facility-wide Risk [5]		--	--	**29.3**	--	--	**1.9**	--	--	**<0.1**	--	--	**1.5**	--	--	**0.3**	--	--	**<0.1**	**3.42516**
HBLR_SCR_SU																				
Cumulative TEU Risk		--	--	**5.10**	--	--	**0.36**	--	--	**0.012**	--	--	**1.02**	--	--	**0.13**	--	--	**6.5E-03**	--
Dispersion Factor (ug/m^3/[g/s])			**1.32**			**2.50**			**0.15**			**2.05**			**2.89**			**0.15**		--
Antimony and compounds	7440-36-0	1.8E-05	[6]	--	3.4E-05	[7]	--	2.0E-06	[8]	--	2.8E-05	0.30	9.3E-05 [b]	3.9E-05	1.30	3.0E-05 [b]	2.0E-06	1.30	1.5E-06 [b]	--
Arsenic and compounds	7440-38-2	9.9E-05	2.4E-05	4.13 [b]	1.9E-04	6.2E-04	0.30 [b]	1.1E-05	1.3E-03	8.6E-03 [b]	1.5E-04	1.7E-04	0.91 [b]	2.2E-04	2.4E-03	0.091 [b]	1.1E-05	2.4E-03	4.6E-03 [b]	--
Beryllium and compounds	7440-41-7	6.2E-07	4.2E-04	1.5E-03 [b]	1.2E-06	5.0E-03	2.3E-04 [b]	6.9E-08	0.011	6.3E-06 [b]	9.6E-07	7.0E-03	1.4E-04 [b]	1.4E-06	0.031	4.4E-05 [b]	6.9E-08	0.031	2.2E-06 [b]	--
Cadmium and compounds	7440-43-9	2.9E-05	5.6E-04	0.051 [b]	5.4E-05	6.7E-03	8.1E-03 [b]	3.2E-06	0.014	2.3E-04 [b]	4.4E-05	5.0E-03	8.9E-03 [b]	6.3E-05	0.037	1.7E-03 [b]	3.2E-06	0.037	8.7E-05 [b]	--
Chromium VI	18540-29-9	2.1E-06	3.1E-05	0.068 [b]	4.0E-06	1.0E-03	4.0E-03 [b]	2.4E-07	5.2E-04	4.5E-04 [b]	3.3E-06	0.083	3.9E-05 [b]	4.6E-06	0.88	5.2E-06 [b]	2.4E-07	0.88	2.7E-07 [b]	--
Cobalt and compounds	7440-48-4	5.8E-05	[6]	--	1.1E-04	[7]	--	6.5E-06	[8]	--	9.0E-05	0.10	9.0E-04 [b]	1.3E-04	0.44	2.9E-04 [b]	6.5E-06	0.44	1.5E-05 [b]	--
Copper and compounds	7440-50-8	1.6E-04	[6]	--	3.1E-04	[7]	--	1.8E-05	[8]	--	2.5E-04	[9]	--	3.6E-04	[10]	--	1.8E-05	[11]	--	--
Lead and compounds	7439-92-1	2.7E-04	[6]	--	5.1E-04	[7]	--	3.0E-05	[8]	--	4.2E-04	0.15	2.8E-03 [b]	5.9E-04	0.66	8.9E-04 [b]	3.0E-05	0.66	4.6E-05 [b]	--
Manganese and compounds	7439-96-5	2.2E-03	[6]	--	4.2E-03	[7]	--	2.5E-04	[8]	--	3.5E-03	0.090	0.039 [b]	4.9E-03	0.40	0.012 [b]	2.5E-04	0.40	6.3E-04 [b]	--
Mercury and compounds	7439-97-6	1.1E-05	[6]	--	2.0E-05	[7]	--	1.2E-06	[8]	--	1.7E-05	0.077	2.2E-04 [b]	2.3E-05	0.63	3.7E-05 [b]	1.2E-06	0.63	1.9E-06 [b]	--
Nickel and compounds	365	6.6E-05	3.8E-03	0.017 [b]	1.2E-04	0.046	2.7E-03 [b]	7.4E-06	0.10	7.4E-05 [b]	1.0E-04	0.014	7.3E-03 [b]	1.4E-04	0.062	2.3E-03 [b]	7.4E-06	0.062	1.2E-04 [b]	--
Selenium and compounds	7782-49-2	1.5E-05	[6]	--	2.9E-05	[7]	--	1.7E-06	[8]	--	2.4E-05	[9]	--	3.3E-05	[10]	--	1.7E-06	[11]	--	--
Vanadium (fume or dust)	7440-62-2	5.3E-06	[6]	--	1.0E-05	[7]	--	6.0E-07	[8]	--	8.3E-06	0.10	8.3E-05 [b]	1.2E-05	0.44	2.6E-05 [b]	6.0E-07	0.44	1.4E-06 [b]	--
Acetaldehyde	75-07-0	2.2E-03	0.45	5.0E-03 [b]	4.2E-03	5.50	7.7E-04 [b]	2.5E-04	12.0	2.1E-05 [b]	3.5E-03	140	2.5E-05 [b]	4.9E-03	620	7.9E-06 [b]	2.5E-04	620	4.1E-07 [b]	--
Acetone	67-64-1	9.2E-03	[6]	--	0.017	[7]	--	1.0E-03	[8]	--	0.014	31,000	4.6E-07 [b]	0.020	140,000	1.4E-07 [b]	1.0E-03	140,000	7.3E-09 [b]	--
Acrolein	107-02-8	3.1E-03	[6]	--	6.0E-03	[7]	--	3.5E-04	[8]	--	4.9E-03	0.35	0.014 [b]	6.9E-03	1.50	4.6E-03 [b]	3.5E-04	1.50	2.4E-04 [b]	--
Benzene	71-43-2	3.5E-03	0.13	0.027 [b]	6.6E-03	1.50	4.4E-03 [b]	3.9E-04	3.30	1.2E-04 [b]	5.5E-03	3.00	1.8E-03 [b]	7.7E-03	13.0	5.9E-04 [b]	3.9E-04	13.0	3.0E-05 [b]	--
Carbon tetrachloride	56-23-5	2.9E-05	0.17	1.7E-04 [b]	5.6E-05	2.00	2.8E-05 [b]	3.3E-06	4.30	7.7E-07 [b]	4.6E-05	100.0	4.6E-07 [b]	6.4E-05	440	1.5E-07 [b]	3.3E-06	440	7.5E-09 [b]	--
Chlorine	7782-50-5	2.3E-03	[6]	--	4.4E-03	[7]	--	2.6E-04	[8]	--	3.7E-03	0.15	0.024 [b]	5.2E-03	0.66	7.8E-03 [b]	2.6E-04	0.66	4.0E-04 [b]	--
Vinyl acetate	108-05-4	6.3E-06	[6]	--	1.2E-05	[7]	--	7.1E-07	[8]	--	9.9E-06	200	4.9E-08 [b]	1.4E-05	880	1.6E-08 [b]	7.1E-07	880	8.1E-10 [b]	--
Chlorobenzene	108-90-7	4.9E-05	[6]	--	9.3E-05	[7]	--	5.5E-06	[8]	--	7.7E-05	50.0	1.5E-06 [b]	1.1E-04	220	4.9E-07 [b]	5.5E-06	220	2.5E-08 [b]	--
Chloroform	67-66-3	6.0E-05	[6]	--	1.1E-04	[7]	--	6.7E-06	[8]	--	9.3E-05	300	3.1E-07 [b]	1.3E-04	1,300	1.0E-07 [b]	6.7E-06	1,300	5.2E-09 [b]	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	5.0E-05	[6]	--	9.5E-05	[7]	--	5.6E-06	[8]	--	7.8E-05	4.00	1.9E-05 [b]	1.1E-04	18.0	6.1E-06 [b]	5.6E-06	18.0	3.1E-07 [b]	--
Ethyl benzene	100-41-4	3.6E-05	0.40	9.1E-05 [b]	6.9E-05	4.80	1.4E-05 [b]	4.1E-06	10.0	4.1E-07 [b]	5.7E-05	260	2.2E-07 [b]	8.0E-05	1,100	7.2E-08 [b]	4.1E-06	1,100	3.7E-09 [b]	--
Formaldehyde	50-00-0	3.9E-03	0.17	0.023 [b]	7.3E-03	2.00	3.6E-03 [b]	4.3E-04	4.30	1.0E-04 [b]	6.0E-03	9.00	6.7E-04 [b]	8.5E-03	40.0	2.1E-04 [b]	4.3E-04	40.0	1.1E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.9E-03	[6]	--	3.6E-03	[7]	--	2.2E-04	[8]	--	3.0E-03	3,000	1.0E-06 [b]	4.2E-03	13,000	3.2E-07 [b]	2.2E-04	13,000	1.7E-08 [b]	--
Isopropylbenzene (Cumene)	98-82-8	6.1E-05	[6]	--	1.2E-04	[7]	--	6.8E-06	[8]	--	9.5E-05	400	2.4E-07 [b]	1.3E-04	1,800	7.4E-08 [b]	6.8E-06	1,800	3.8E-09 [b]	--
Hexane	110-54-3	8.6E-04	[6]	--	1.6E-03	[7]	--	9.6E-05	[8]	--	1.3E-03	700	1.9E-06 [b]	1.9E-03	3,100	6.1E-07 [b]	9.6E-05	3,100	3.1E-08 [b]	--
Isopropyl alcohol	67-63-0	0.013	[6]	--	0.025	[7]	--	1.5E-03	[8]	--	0.021	200	1.0E-04 [b]	0.030	880	3.4E-05 [b]	1.5E-03	880	1.7E-06 [b]	--
Methanol	67-56-1	2.4E-03	[6]	--	4.5E-03	[7]	--	2.7E-04	[8]	--	3.7E-03	4,000	9.3E-07 [b]	5.3E-03	18,000	2.9E-07 [b]	2.7E-04	18,000	1.5E-08 [b]	--
Bromomethane (Methyl bromide)	74-83-9	4.4E-05	[6]	--	8.3E-05	[7]	--	4.9E-06	[8]	--	6.8E-05	5.00	1.4E-05 [b]	9.6E-05	22.0	4.4E-06 [b]	4.9E-06	22.0	2.2E-07 [b]	--
Chloromethane (Methyl chloride)	74-87-3	1.7E-04	[6]	--	3.2E-04	[7]	--	1.9E-05	[8]	--	2.7E-04	90.0	3.0E-06 [b]	3.7E-04	400	9.4E-07 [b]	1.9E-05	400	4.8E-08 [b]	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	1.7E-04	[6]	--	3.3E-04	[7]	--	1.9E-05	[8]	--	2.7E-04	5,000	5.4E-08 [b]	3.8E-04	22,000	1.7E-08 [b]	1.9E-05	22,000	8.8E-10 [b]	--
1,2,4-Trimethyl benzene	95-63-6	1.5E-05	[6]	--	2.7E-05	[7]	--	1.6E-06	[8]	--	2.3E-05	60.0	3.8E-07 [b]	3.2E-05	260	1.2E-07 [b]	1.6E-06	260	6.3E-09 [b]	--
Dichloromethane (Methylene chloride)	75-09-2	1.4E-03	59.0	2.3E-05 [b]	2.6E-03	1,200	2.2E-06 [b]	1.5E-04	620	2.5E-07 [b]	2.1E-03	600	3.6E-06 [b]	3.0E-03	2,600	1.2E-06 [b]	1.5E-04	2,600	5.9E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	4.9E-04	[6]	--	9.2E-04	[7]	--	5.5E-05	[8]	--	7.6E-04	5,000	1.5E-07 [b]	1.1E-03	22,000	4.9E-08 [b]	5.5E-05	22,000	2.5E-09 [b]	--
Phenol	108-95-2	4.8E-03	[6]	--	9.1E-03	[7]	--	5.4E-04	[8]	--	7.5E-03	200	3.8E-05 [b]	0.011	880	1.2E-05 [b]	5.4E-04	880	6.2E-07 [b]	--
Propionaldehyde	123-38-6	1.7E-03	[6]	--	3.2E-03	[7]	--	1.9E-04	[8]	--	2.7E-03	8.00	3.3E-04 [b]	3.7E-03	35.0	1.1E-04 [b]	1.9E-04	35.0	5.5E-06 [b]	--
Styrene	100-42-5	1.4E-03	[6]	--	2.7E-03	[7]	--	1.6E-04	[8]	--	2.2E-03	1,000	2.2E-06 [b]	3.1E-03	4,400	7.1E-07 [b]	1.6E-04	4,400	3.6E-08 [b]	--
Toluene	108-88-3	1.0E-03	[6]	--	1.9E-03	[7]	--	1.1E-04	[8]	--	1.6E-03	5,000	3.1E-07 [b]	2.2E-03	22,000	1.0E-07 [b]	1.1E-04	22,000	5.1E-09 [b]	--
Xylene (mixture)	1330-20-7	1.6E-05	[6]	--	2.9E-05	[7]	--	1.7E-06	[8]	--	2.4E-05	220	1.1E-07 [b]	3.4E-05	970	3.5E-08 [b]	1.7E-06	970	1.8E-09 [b]	--
Vinyl Chloride	75-01-4	5.5E-05	0.11	5.0E-04 [b]	1.0E-04	2.70	3.8E-05 [b]	6.1E-06	0.22	2.8E-05 [b]	8.5E-05	100.0	8.5E-07 [b]	1.2E-04	440	2.7E-07 [b]	6.1E-06	440	1.4E-08 [b]	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	5.9E-05	0.20	3.0E-04 [b]	1.1E-04	2.90	3.9E-05 [b]	6.6E-06	3.50	1.9E-06 [b]	9.2E-05	2.10	4.4E-05 [b]	1.3E-04	9.20	1.4E-05 [b]	6.6E-06	9.20	7.2E-07 [b]	--
m-Xylene	108-38-3	2.9E-04	[6]	--	5.5E-04	[7]	--	3.3E-05	[8]	--	4.6E-04	200	2.3E-06 [b]	6.4E-04	880	7.3E-07 [b]	3.3E-05	880	3.7E-08 [b]	--
p-Xylene	106-42-3	2.9E-04	[6]	--	5.5E-04	[7]	--	3.3E-05	[8]	--	4.6E-04	200	2.3E-06 [b]	6.4E-04	880	7.3E-07 [b]	3.3E-05	880	3.7E-08 [b]	--
o-Xylene	95-47-6	5.1E-06	[6]	--	9.7E-06	[7]	--	5.8E-07	[8]	--	8.0E-06	200	4.0E-08 [b]	1.1E-05	880	1.3E-08 [b]	5.8E-07	880	6.6E-10 [b]	--
Hydrogen fluoride	7664-39-3	7.6E-05	[6]	--	1.4E-04	[7]	--	8.5E-06	[8]	--	1.2E-04	2.10	5.6E-05 [b]	1.7E-04	19.0	8.7E-06 [b]	8.5E-06	19.0	4.5E-07 [b]	--
Hydrochloric acid	7647-01-0	3.5E-04	[6]	--	6.6E-04	[7]	--	3.9E-05	[8]	--	5.5E-04	20.0	2.7E-05 [b]	7.7E-04	88.0	8.8E-06 [b]	3.9E-05	88.0	4.5E-07 [b]	--
Benz[a]anthracene	56-55-3	2.4E-06	2.1E-04	0.012 [b]	4.6E-06	0.015	3.1E-04 [b]	2.7E-07	7.8E-03	3.5E-05 [b]	3.8E-06	[9]	--	5.3E-06	[10]	--	2.7E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	2.0E-05	4.3E-05	0.46 [b]	3.7E-05	3.0E-03	0.012 [b]	2.2E-06	1.6E-03	1.4E-03 [b]	3.1E-05	2.0E-03	0.015 [b]	4.3E-05	8.8E-03	4.9E-03 [b]	2.2E-06	8.8E-03	2.5E-04 [b]	--
Benzo[b]fluoranthene	205-99-2	4.2E-06	5.3E-05	0.080 [b]	8.0E-06	3.8E-03	2.1E-03 [b]	4.7E-07	2.0E-03	2.4E-04 [b]	6.6E-06	[9]	--	9.3E-06	[10]	--	4.7E-07	[11]	--	--
Benzo[g,h,i]perylene	191-24-2	4.5E-06	4.7E-03	9.6E-04 [b]	8.5E-06	0.34	2.5E-05 [b]	5.0E-07	0.17	3.0E-06 [b]	7.0E-06	[9]	--	9.9E-06	[10]	--	5.0E-07	[11]	--	--
Benzo[j]fluoranthene	205-82-3	4.6E-06	1.4E-04	0.033 [b]	8.8E-06	0.010	8.8E-04 [b]	5.2E-07	5.2E-03	1.0E-04 [b]	7.2E-06	[9]	--	1.0E-05	[10]	--	5.2E-07	[11]	--	--
Benzo[k]fluoranthene	207-08-9	1.5E-06	1.4E-03	1.1E-03 [b]	2.9E-06	0.10	2.9E-05 [b]	1.7E-07	0.052	3.3E-06 [b]	2.4E-06	[9]	--	3.4E-06	[10]	--	1.7E-07	[11]	--	--
Chrysene	218-01-9	2.3E-06	4.3E-04	5.5E-03 [b]	4.4E-06	0.030	1.5E-04 [b]	2.6E-07	0.016	1.6E-05 [b]	3.7E-06	[9]	--	5.2E-06	[10]	--	2.6E-07	[11]	--	--
Fluoranthene	206-44-0	5.0E-05	5.3E-04	0.094 [b]	9.4E-05	0.038	2.5E-03 [b]	5.6E-06	0.020	2.8E-04 [b]	7.7E-05	[9]	--	1.1E-04	[10]	--	5.6E-06	[11]	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	3.0E-06	6.1E-04	5.0E-03 [b]	5.7E-06	0.043	1.3E-04 [b]	3.4E-07	0.022	1.5E-05 [b]	4.7E-06	[9]	--	6.7E-06	[10]	--	3.4E-07	[11]	--	--
Naphthalene	91-20-3	1.7E-03	0.029	0.060 [b]	3.3E-03	0.35	9.4E-03 [b]	1.9E-04	0.76	2.6E-04 [b]	2.7E-03	3.70	7.3E-04 [b]	3.8E-03	16.0	2.4E-04 [b]	1.9E-04	16.0	1.2E-05 [b]	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	2.8E-12	1.0E-09	2.8E-03 [b]	5.4E-12	4.2E-08	1.3E-04 [b]	3.2E-13	9.0E-08	3.5E-06 [b]	4.4E-12	1.3E-07	3.4E-05 [b]	6.2E-12	2.6E-05	2.4E-07 [b]	3.2E-13	2.6E-05	1.2E-08 [b]	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	4.0E-12	1.0E-09	4.0E-03 [b]	7.5E-12	4.2E-08	1.8E-04 [b]	4.4E-13	9.0E-08	4.9E-06 [b]	6.2E-12	1.3E-07	4.7E-05 [b]	8.7E-12	2.6E-05	3.3E-07 [b]	4.4E-13	2.6E-05	1.7E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	2.6E-12	1.0E-08	2.6E-04 [b]	4.9E-12	4.2E-07	1.2E-05 [b]	2.9E-13	9.0E-07	3.2E-07 [b]	4.0E-12	1.3E-06	3.1E-06 [b]	5.7E-12	2.6E-04	2.2E-08 [b]	2.9E-13	2.6E-04	1.1E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	6.2E-12	1.0E-08	6.2E-04 [b]	1.2E-11	4.2E-07	2.8E-05 [b]	7.0E-13	9.0E-07	7.8E-07 [b]	9.7E-12	1.3E-06	7.4E-06 [b]	1.4E-11	2.6E-04	5.2E-08 [b]	7.0E-13	2.6E-04	2.7E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	6.6E-12	1.0E-08	6.6E-04 [b]	1.2E-11	4.2E-07	3.0E-05 [b]	7.4E-13	9.0E-07	8.2E-07 [b]	1.0E-11	1.3E-06	7.9E-06 [b]	1.4E-11	2.6E-04	5.5E-08 [b]	7.4E-13	2.6E-04	2.8E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	2.9E-11	1.0E-07	2.9E-04 [b]	5.5E-11	4.2E-06	1.3E-05 [b]	3.3E-12	9.0E-06	3.6E-07 [b]	4.5E-11	1.3E-05	3.5E-06 [b]	6.4E-11	2.6E-03	2.4E-08 [b]	3.3E-12	2.6E-03	1.3E-09 [b]	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	7.3E-11	3.4E-06	2.2E-05 [b]	1.4E-10	1.4E-04	9.9E-07 [b]	8.2E-12	3.0E-04	2.7E-08 [b]	1.1E-10	4.2E-04	2.7E-07 [b]	1.6E-10	0.085	1.9E-09 [b]	8.2E-12	0.085	9.7E-11 [b]	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	2.4E-11	1.0E-08	2.4E-03 [b]	4.5E-11	4.2E-07	1.1E-04 [b]	2.7E-12	9.0E-07	3.0E-06 [b]	3.7E-11	1.3E-06	2.9E-05 [b]	5.2E-11	2.6E-04	2.0E-07 [b]	2.7E-12	2.6E-04	1.0E-08 [b]	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	1.2E-11	3.4E-08	3.5E-04 [b]	2.2E-11	1.4E-06	1.6E-05 [b]	1.3E-12	3.0E-06	4.4E-07 [b]	1.8E-11	4.2E-06	4.4E-06 [b]	2.6E-11	8.5E-04	3.1E-08 [b]	1.3E-12	8.5E-04	1.6E-09 [b]	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	1.8E-11	3.4E-09	5.3E-03 [b]	3.4E-11	1.4E-07	2.4E-04 [b]	2.0E-12	3.0E-07	6.8E-06 [b]	2.8E-11	4.2E-07	6.7E-05 [b]	4.0E-11	8.5E-05	4.7E-07 [b]	2.0E-12	8.5E-05	2.4E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	1.1E-11	1.0E-08	1.1E-03 [b]	2.0E-11	4.2E-07	4.8E-05 [b]	1.2E-12	9.0E-07	1.3E-06 [b]	1.6E-11	1.3E-06	1.3E-05 [b]	2.3E-11	2.6E-04	8.9E-08 [b]	1.2E-12	2.6E-04	4.6E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	9.4E-12	1.0E-08	9.4E-04 [b]	1.8E-11	4.2E-07	4.2E-05 [b]	1.1E-12	9.0E-07	1.2E-06 [b]	1.5E-11	1.3E-06	1.1E-05 [b]	2.1E-11	2.6E-04	7.9E-08 [b]	1.1E-12	2.6E-04	4.1E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	2.0E-12	1.0E-08	2.0E-04 [b]	3.8E-12	4.2E-07	8.9E-06 [b]	2.2E-13	9.0E-07	2.5E-07 [b]	3.1E-12	1.3E-06	2.4E-06 [b]	4.4E-12	2.6E-04	1.7E-08 [b]	2.2E-13	2.6E-04	8.6E-10 [b]	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	7.9E-12	1.0E-08	7.9E-04 [b]	1.5E-11	4.2E-07	3.6E-05 [b]	8.9E-13	9.0E-07	9.9E-07 [b]	1.2E-11	1.3E-06	9.5E-06 [b]	1.7E-11	2.6E-04	6.7E-08 [b]	8.9E-13	2.6E-04	3.4E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	1.7E-11	1.0E-07	1.7E-04 [b]	3.2E-11	4.2E-06	7.7E-06 [b]	1.9E-12	9.0E-06	2.1E-07 [b]	2.6E-11	1.3E-05	2.0E-06 [b]	3.7E-11	2.6E-03	1.4E-08 [b]	1.9E-12	2.6E-03	7.3E-10 [b]	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	2.4E-12	1.0E-07	2.4E-05 [b]	4.5E-12	4.2E-06	1.1E-06 [b]	2.7E-13	9.0E-06	3.0E-08 [b]	3.7E-12	1.3E-05	2.8E-07 [b]	5.2E-12	2.6E-03	2.0E-09 [b]	2.7E-13	2.6E-03	1.0E-10 [b]	--
Octachlorodibenzofuran (OCDF)	39001-02-0	1.5E-11	3.4E-06	4.4E-06 [b]	2.8E-11	1.4E-04	2.0E-07 [b]	1.7E-12	3.0E-04	5.6E-09 [b]	2.3E-11	4.2E-04	5.5E-08 [b]	3.3E-11	0.085	3.8E-10 [b]	1.7E-12	0.085	2.0E-11 [b]	--
Total PCBs	1336-36-3	2.3E-08	5.3E-04	4.4E-05 [b]	4.4E-08	9.2E-03	4.8E-06 [b]	2.6E-09	0.020	1.3E-07 [b]	3.6E-08	[9]	--	5.1E-08	[10]	--	2.6E-09	[11]	--	--
2,4-Dinitrotoluene	121-14-2	2.8E-06	0.011	2.5E-04 [b]	5.3E-06	0.13	4.1E-05 [b]	3.1E-07	0.29	1.1E-06 [b]	4.4E-06	[9]	--	6.1E-06	[10]	--	3.1E-07	[11]	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	1.4E-07	0.080	1.7E-06 [b]	2.6E-07	5.00	5.2E-08 [b]	1.6E-08	11.0	1.4E-09 [b]	2.2E-07	[9]	--	3.0E-07	[10]	--	1.6E-08	[11]	--	--
Hydrogen cyanide	74-90-8	6.1E-05	[6]	--	1.2E-04	[7]	--	6.8E-06	[8]	--	9.5E-05	0.80	1.2E-04 [b]	1.3E-04	3.50	3.8E-05 [b]	6.8E-06	3.50	2.0E-06 [b]	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	8.7E-05	0.038	2.3E-03 [b]	1.6E-04	0.46	3.6E-04 [b]	9.8E-06	1.00	9.8E-06 [b]	1.4E-04	7.00	1.9E-05 [b]	1.9E-04	31.0	6.1E-06 [b]	9.8E-06	31.0	3.1E-07 [b]	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	8.3E-04	0.091	9.1E-03 [b]	1.6E-03	1.10	1.4E-03 [b]	9.3E-05	2.40	3.9E-05 [b]	1.3E-03	60.0	2.2E-05 [b]	1.8E-03	260	7.0E-06 [b]	9.3E-05	260	3.6E-07 [b]	--
2,4,6-Trichlorophenol	88-06-2	5.9E-07	0.050	1.2E-05 [b]	1.1E-06	0.60	1.9E-06 [b]	6.7E-08	1.30	5.1E-08 [b]	9.3E-07	[9]	--	1.3E-06	[10]	--	6.7E-08	[11]	--	--
Pentachlorophenol	87-86-5	6.4E-07	0.20	3.2E-06 [b]	1.2E-06	2.40	5.0E-07 [b]	7.1E-08	5.10	1.4E-08 [b]	9.9E-07	[9]	--	1.4E-06	[10]	--	7.1E-08	[11]	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	7.3E-05	3.80	1.9E-05 [b]	1.4E-04	46.0	3.0E-06 [b]	8.2E-06	100.0	8.2E-08 [b]	1.1E-04	41.0	2.8E-06 [b]	1.6E-04	180	8.9E-07 [b]	8.2E-06	180	4.6E-08 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
HBLR_ESP																				
Cumulative TEU Risk		--	--	**0.89**	--	--	**0.025**	--	--	**6.6E-03**	--	--	**0.31**	--	--	**9.3E-03**	--	--	**2.8E-03**	--
Dispersion Factor (ug/m^3/[g/s])		**0.10**			**0.097**			**0.031**			**0.41**			**0.10**			**0.031**			--
Antimony and compounds	7440-36-0	1.5E-06	[6]	--	1.4E-06	[7]	--	4.3E-07	[8]	--	5.8E-06	0.30	1.9E-05 [b]	1.4E-06	1.30	1.1E-06 [b]	4.3E-07	1.30	3.3E-07 [b]	--
Arsenic and compounds	7440-38-2	9.1E-06	2.4E-05	0.38 [b]	8.5E-06	6.2E-04	0.014 [b]	2.7E-06	1.3E-03	2.0E-03 [b]	3.6E-05	1.7E-04	0.21 [b]	9.0E-06	2.4E-03	3.7E-03 [b]	2.7E-06	2.4E-03	1.1E-03 [b]	--
Beryllium and compounds	7440-41-7	1.4E-07	4.2E-04	3.3E-04 [b]	1.3E-07	5.0E-03	2.6E-05 [b]	4.0E-08	0.011	3.6E-06 [b]	5.4E-07	7.0E-03	7.7E-05 [b]	1.4E-07	0.031	4.4E-06 [b]	4.0E-08	0.031	1.3E-06 [b]	--
Cadmium and compounds	7440-43-9	1.6E-06	5.6E-04	2.8E-03 [b]	1.5E-06	6.7E-03	2.2E-04 [b]	4.6E-07	0.014	3.3E-05 [b]	6.1E-06	5.0E-03	1.2E-03 [b]	1.5E-06	0.037	4.1E-05 [b]	4.6E-07	0.037	1.2E-05 [b]	--
Chromium VI	18540-29-9	1.3E-06	3.1E-05	0.042 [b]	1.2E-06	1.0E-03	1.2E-03 [b]	3.8E-07	5.2E-04	7.4E-04 [b]	5.1E-06	0.083	6.2E-05 [b]	1.3E-06	0.88	1.5E-06 [b]	3.8E-07	0.88	4.3E-07 [b]	--
Cobalt and compounds	7440-48-4	9.6E-06	[6]	--	8.9E-06	[7]	--	2.8E-06	[8]	--	3.8E-05	0.10	3.8E-04 [b]	9.4E-06	0.44	2.1E-05 [b]	2.8E-06	0.44	6.4E-06 [b]	--
Copper and compounds	7440-50-8	1.8E-05	[6]	--	1.7E-05	[7]	--	5.3E-06	[8]	--	7.2E-05	[9]	--	1.8E-05	[10]	--	5.3E-06	[11]	--	--
Lead and compounds	7439-92-1	2.5E-05	[6]	--	2.3E-05	[7]	--	7.3E-06	[8]	--	9.8E-05	0.15	6.6E-04 [b]	2.5E-05	0.66	3.7E-05 [b]	7.3E-06	0.66	1.1E-05 [b]	--
Manganese and compounds	7439-96-5	4.6E-04	[6]	--	4.3E-04	[7]	--	1.3E-04	[8]	--	1.8E-03	0.090	0.020 [b]	4.5E-04	0.40	1.1E-03 [b]	1.3E-04	0.40	3.4E-04 [b]	--
Mercury and compounds	7439-97-6	4.4E-06	[6]	--	4.1E-06	[7]	--	1.3E-06	[8]	--	1.7E-05	0.077	2.3E-04 [b]	4.4E-06	0.63	6.9E-06 [b]	1.3E-06	0.63	2.1E-06 [b]	--
Nickel and compounds	365	1.3E-05	3.8E-03	3.6E-03 [b]	1.3E-05	0.046	2.7E-04 [b]	3.9E-06	0.10	3.9E-05 [b]	5.3E-05	0.014	3.8E-03 [b]	1.3E-05	0.062	2.1E-04 [b]	3.9E-06	0.062	6.4E-05 [b]	--
Selenium and compounds	7782-49-2	7.8E-06	[6]	--	7.3E-06	[7]	--	2.3E-06	[8]	--	3.1E-05	[9]	--	7.7E-06	[10]	--	2.3E-06	[11]	--	--
Vanadium (fume or dust)	7440-62-2	2.9E-06	[6]	--	2.7E-06	[7]	--	8.4E-07	[8]	--	1.1E-05	0.10	1.1E-04 [b]	2.8E-06	0.44	6.4E-06 [b]	8.4E-07	0.44	1.9E-06 [b]	--
Acetaldehyde	75-07-0	5.5E-04	0.45	1.2E-03 [b]	5.1E-04	5.50	9.2E-05 [b]	1.6E-04	12.0	1.3E-05 [b]	2.1E-03	140	1.5E-05 [b]	5.4E-04	620	8.7E-07 [b]	1.6E-04	620	2.6E-07 [b]	--
Acetone	67-64-1	1.0E-03	[6]	--	9.5E-04	[7]	--	3.0E-04	[8]	--	4.0E-03	31,000	1.3E-07 [b]	1.0E-03	140,000	7.2E-09 [b]	3.0E-04	140,000	2.1E-09 [b]	--
Acrolein	107-02-8	5.0E-04	[6]	--	4.7E-04	[7]	--	1.5E-04	[8]	--	2.0E-03	0.35	5.6E-03 [b]	4.9E-04	1.50	3.3E-04 [b]	1.5E-04	1.50	9.8E-05 [b]	--
Benzene	71-43-2	1.9E-03	0.13	0.015 [b]	1.8E-03	1.50	1.2E-03 [b]	5.5E-04	3.30	1.7E-04 [b]	7.4E-03	3.00	2.5E-03 [b]	1.9E-03	13.0	1.4E-04 [b]	5.5E-04	13.0	4.2E-05 [b]	--
Carbon tetrachloride	56-23-5	1.9E-05	0.17	1.1E-04 [b]	1.8E-05	2.00	8.8E-06 [b]	5.6E-06	4.30	1.3E-06 [b]	7.5E-05	100.0	7.5E-07 [b]	1.9E-05	440	4.3E-08 [b]	5.6E-06	440	1.3E-08 [b]	--
Chlorine	7782-50-5	1.5E-03	[6]	--	1.4E-03	[7]	--	4.4E-04	[8]	--	6.0E-03	0.15	0.040 [b]	1.5E-03	0.66	2.3E-03 [b]	4.4E-04	0.66	6.7E-04 [b]	--
Chlorobenzene	108-90-7	3.2E-05	[6]	--	3.0E-05	[7]	--	9.3E-06	[8]	--	1.3E-04	50.0	2.5E-06 [b]	3.1E-05	220	1.4E-07 [b]	9.3E-06	220	4.2E-08 [b]	--
Chloroform	67-66-3	3.9E-05	[6]	--	3.6E-05	[7]	--	1.1E-05	[8]	--	1.5E-04	300	5.1E-07 [b]	3.8E-05	1,300	2.9E-08 [b]	1.1E-05	1,300	8.7E-09 [b]	--
1,2-Dichloropropane (Propylene dichloride)	78-87-5	3.2E-05	[6]	--	3.0E-05	[7]	--	9.5E-06	[8]	--	1.3E-04	4.00	3.2E-05 [b]	3.2E-05	18.0	1.8E-06 [b]	9.5E-06	18.0	5.3E-07 [b]	--
Ethyl benzene	100-41-4	2.4E-05	0.40	5.9E-05 [b]	2.2E-05	4.80	4.6E-06 [b]	6.9E-06	10.0	6.9E-07 [b]	9.2E-05	260	3.5E-07 [b]	2.3E-05	1,100	2.1E-08 [b]	6.9E-06	1,100	6.2E-09 [b]	--
Formaldehyde	50-00-0	2.0E-03	0.17	0.012 [b]	1.9E-03	2.00	9.4E-04 [b]	5.9E-04	4.30	1.4E-04 [b]	7.9E-03	9.00	8.8E-04 [b]	2.0E-03	40.0	5.0E-05 [b]	5.9E-04	40.0	1.5E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	8.6E-04	[6]	--	8.0E-04	[7]	--	2.5E-04	[8]	--	3.4E-03	3,000	1.1E-06 [b]	8.4E-04	13,000	6.5E-08 [b]	2.5E-04	13,000	1.9E-08 [b]	--
Isopropylbenzene (Cumene)	98-82-8	3.4E-05	[6]	--	3.2E-05	[7]	--	1.0E-05	[8]	--	1.3E-04	400	3.3E-07 [b]	3.4E-05	1,800	1.9E-08 [b]	1.0E-05	1,800	5.5E-09 [b]	--
Hexane	110-54-3	5.6E-04	[6]	--	5.2E-04	[7]	--	1.6E-04	[8]	--	2.2E-03	700	3.1E-06 [b]	5.5E-04	3,100	1.8E-07 [b]	1.6E-04	3,100	5.2E-08 [b]	--
Isopropyl alcohol	67-63-0	8.7E-03	[6]	--	8.1E-03	[7]	--	2.5E-03	[8]	--	0.034	200	1.7E-04 [b]	8.6E-03	880	9.7E-06 [b]	2.5E-03	880	2.9E-06 [b]	--
Methanol	67-56-1	1.4E-03	[6]	--	1.3E-03	[7]	--	4.1E-04	[8]	--	5.5E-03	4,000	1.4E-06 [b]	1.4E-03	18,000	7.7E-08 [b]	4.1E-04	18,000	2.3E-08 [b]	--
Bromomethane (Methyl bromide)	74-83-9	2.2E-05	[6]	--	2.0E-05	[7]	--	6.4E-06	[8]	--	8.5E-05	5.00	1.7E-05 [b]	2.1E-05	22.0	9.7E-07 [b]	6.4E-06	22.0	2.9E-07 [b]	--
Chloromethane (Methyl chloride)	74-87-3	8.4E-05	[6]	--	7.8E-05	[7]	--	2.4E-05	[8]	--	3.3E-04	90.0	3.7E-06 [b]	8.2E-05	400	2.1E-07 [b]	2.4E-05	400	6.1E-08 [b]	--
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	1.1E-04	[6]	--	1.0E-04	[7]	--	3.3E-05	[8]	--	4.4E-04	5,000	8.7E-08 [b]	1.1E-04	22,000	5.0E-09 [b]	3.3E-05	22,000	1.5E-09 [b]	--
Dichloromethane (Methylene chloride)	75-09-2	7.7E-04	59.0	1.3E-05 [b]	7.1E-04	1,200	5.9E-07 [b]	2.2E-04	620	3.6E-07 [b]	3.0E-03	600	5.0E-06 [b]	7.5E-04	2,600	2.9E-07 [b]	2.2E-04	2,600	8.6E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.3E-05	[6]	--	1.2E-05	[7]	--	3.9E-06	[8]	--	5.3E-05	5,000	1.1E-08 [b]	1.3E-05	22,000	6.0E-10 [b]	3.9E-06	22,000	1.8E-10 [b]	--
Phenol	108-95-2	3.1E-04	[6]	--	2.9E-04	[7]	--	9.0E-05	[8]	--	1.2E-03	200	6.0E-06 [b]	3.0E-04	880	3.4E-07 [b]	9.0E-05	880	1.0E-07 [b]	--
Propionaldehyde	123-38-6	6.0E-04	[6]	--	5.6E-04	[7]	--	1.7E-04	[8]	--	2.3E-03	8.00	2.9E-04 [b]	5.9E-04	35.0	1.7E-05 [b]	1.7E-04	35.0	5.0E-06 [b]	--
Styrene	100-42-5	9.0E-04	[6]	--	8.4E-04	[7]	--	2.6E-04	[8]	--	3.5E-03	1,000	3.5E-06 [b]	8.9E-04	4,400	2.0E-07 [b]	2.6E-04	4,400	6.0E-08 [b]	--
Toluene	108-88-3	2.2E-05	[6]	--	2.0E-05	[7]	--	6.4E-06	[8]	--	8.6E-05	5,000	1.7E-08 [b]	2.2E-05	22,000	9.8E-10 [b]	6.4E-06	22,000	2.9E-10 [b]	--
Xylene (mixture)	1330-20-7	1.0E-05	[6]	--	9.3E-06	[7]	--	2.9E-06	[8]	--	3.9E-05	220	1.8E-07 [b]	9.9E-06	970	1.0E-08 [b]	2.9E-06	970	3.0E-09 [b]	--
Vinyl Chloride	75-01-4	3.5E-05	0.11	3.2E-04 [b]	3.3E-05	2.70	1.2E-05 [b]	1.0E-05	0.22	4.7E-05 [b]	1.4E-04	100.0	1.4E-06 [b]	3.5E-05	440	7.9E-08 [b]	1.0E-05	440	2.4E-08 [b]	--
Trichloroethene (TCE, Trichloroethylene)	79-01-6	3.8E-05	0.20	1.9E-04 [b]	3.6E-05	2.90	1.2E-05 [b]	1.1E-05	3.50	3.2E-06 [b]	1.5E-04	2.10	7.2E-05 [b]	3.8E-05	9.20	4.1E-06 [b]	1.1E-05	9.20	1.2E-06 [b]	--
Hydrogen fluoride	7664-39-3	1.7E-04	[6]	--	1.6E-04	[7]	--	5.1E-05	[8]	--	6.8E-04	2.10	3.3E-04 [b]	1.7E-04	19.0	9.0E-06 [b]	5.1E-05	19.0	2.7E-06 [b]	--
Hydrochloric acid	7647-01-0	1.5E-04	[6]	--	1.4E-04	[7]	--	4.4E-05	[8]	--	5.9E-04	20.0	2.9E-05 [b]	1.5E-04	88.0	1.7E-06 [b]	4.4E-05	88.0	5.0E-07 [b]	--
Benz[a]anthracene	56-55-3	1.6E-06	2.1E-04	7.5E-03 [b]	1.5E-06	0.015	9.7E-05 [b]	4.6E-07	7.8E-03	5.9E-05 [b]	6.1E-06	[9]	--	1.5E-06	[10]	--	4.6E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	1.1E-05	4.3E-05	0.25 [b]	9.9E-06	3.0E-03	3.3E-03 [b]	3.1E-06	1.6E-03	2.0E-03 [b]	4.2E-05	2.0E-03	0.021 [b]	1.1E-05	8.8E-03	1.2E-03 [b]	3.1E-06	8.8E-03	3.5E-04 [b]	--
Benzo[b]fluoranthene	205-99-2	2.7E-06	5.3E-05	0.052 [b]	2.5E-06	3.8E-03	6.7E-04 [b]	8.0E-07	2.0E-03	4.0E-04 [b]	1.1E-05	[9]	--	2.7E-06	[10]	--	8.0E-07	[11]	--	--
Benzo[g,h,i]perylene	191-24-2	2.9E-06	4.7E-03	6.2E-04 [b]	2.7E-06	0.34	8.0E-06 [b]	8.5E-07	0.17	5.0E-06 [b]	1.1E-05	[9]	--	2.9E-06	[10]	--	8.5E-07	[11]	--	--
Benzo[j]fluoranthene	205-82-3	3.0E-06	1.4E-04	0.021 [b]	2.8E-06	0.010	2.8E-04 [b]	8.8E-07	5.2E-03	1.7E-04 [b]	1.2E-05	[9]	--	3.0E-06	[10]	--	8.8E-07	[11]	--	--
Benzo[k]fluoranthene	207-08-9	1.0E-06	1.4E-03	7.1E-04 [b]	9.3E-07	0.10	9.3E-06 [b]	2.9E-07	0.052	5.6E-06 [b]	3.9E-06	[9]	--	9.8E-07	[10]	--	2.9E-07	[11]	--	--
Chrysene	218-01-9	1.5E-06	4.3E-04	3.5E-03 [b]	1.4E-06	0.030	4.7E-05 [b]	4.4E-07	0.016	2.8E-05 [b]	6.0E-06	[9]	--	1.5E-06	[10]	--	4.4E-07	[11]	--	--
Fluoranthene	206-44-0	3.2E-05	5.3E-04	0.061 [b]	3.0E-05	0.038	7.9E-04 [b]	9.4E-06	0.020	4.7E-04 [b]	1.3E-04	[9]	--	3.2E-05	[10]	--	9.4E-06	[11]	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	2.0E-06	6.1E-04	3.2E-03 [b]	1.8E-06	0.043	4.2E-05 [b]	5.7E-07	0.022	2.6E-05 [b]	7.7E-06	[9]	--	1.9E-06	[10]	--	5.7E-07	[11]	--	--
Naphthalene	91-20-3	4.8E-04	0.029	0.017 [b]	4.5E-04	0.35	1.3E-03 [b]	1.4E-04	0.76	1.8E-04 [b]	1.9E-03	3.70	5.1E-04 [b]	4.7E-04	16.0	2.9E-05 [b]	1.4E-04	16.0	8.8E-06 [b]	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	1.8E-12	1.0E-09	1.8E-03 [b]	1.7E-12	4.2E-08	4.1E-05 [b]	5.4E-13	9.0E-08	6.0E-06 [b]	7.2E-12	1.3E-07	5.5E-05 [b]	1.8E-12	2.6E-05	6.9E-08 [b]	5.4E-13	2.6E-05	2.1E-08 [b]	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	2.6E-12	1.0E-09	2.6E-03 [b]	2.4E-12	4.2E-08	5.7E-05 [b]	7.5E-13	9.0E-08	8.3E-06 [b]	1.0E-11	1.3E-07	7.7E-05 [b]	2.5E-12	2.6E-05	9.7E-08 [b]	7.5E-13	2.6E-05	2.9E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	1.7E-12	1.0E-08	1.7E-04 [b]	1.6E-12	4.2E-07	3.7E-06 [b]	4.9E-13	9.0E-07	5.4E-07 [b]	6.6E-12	1.3E-06	5.1E-06 [b]	1.6E-12	2.6E-04	6.3E-09 [b]	4.9E-13	2.6E-04	1.9E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	4.0E-12	1.0E-08	4.0E-04 [b]	3.7E-12	4.2E-07	8.9E-06 [b]	1.2E-12	9.0E-07	1.3E-06 [b]	1.6E-11	1.3E-06	1.2E-05 [b]	4.0E-12	2.6E-04	1.5E-08 [b]	1.2E-12	2.6E-04	4.5E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	4.3E-12	1.0E-08	4.3E-04 [b]	4.0E-12	4.2E-07	9.4E-06 [b]	1.2E-12	9.0E-07	1.4E-06 [b]	1.7E-11	1.3E-06	1.3E-05 [b]	4.2E-12	2.6E-04	1.6E-08 [b]	1.2E-12	2.6E-04	4.8E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD	35822-46-9	1.9E-11	1.0E-07	1.9E-04 [b]	1.7E-11	4.2E-06	4.2E-06 [b]	5.5E-12	9.0E-06	6.1E-07 [b]	7.4E-11	1.3E-05	5.7E-06 [b]	1.8E-11	2.6E-03	7.1E-09 [b]	5.5E-12	2.6E-03	2.1E-09 [b]	--
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	4.7E-11	3.4E-06	1.4E-05 [b]	4.4E-11	1.4E-04	3.1E-07 [b]	1.4E-11	3.0E-04	4.6E-08 [b]	1.9E-10	4.2E-04	4.4E-07 [b]	4.7E-11	0.085	5.5E-10 [b]	1.4E-11	0.085	1.6E-10 [b]	--
2,3,7,8-Tetrachlorodibenzofuran (TcDF)	51207-31-9	1.5E-11	1.0E-08	1.5E-03 [b]	1.4E-11	4.2E-07	3.4E-05 [b]	4.5E-12	9.0E-07	5.0E-06 [b]	6.1E-11	1.3E-06	4.7E-05 [b]	1.5E-11	2.6E-04	5.9E-08 [b]	4.5E-12	2.6E-04	1.7E-08 [b]	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	7.7E-12	3.4E-08	2.3E-04 [b]	7.1E-12	1.4E-06	5.1E-06 [b]	2.2E-12	3.0E-06	7.5E-07 [b]	3.0E-11	4.2E-06	7.2E-06 [b]	7.6E-12	8.5E-04	8.9E-09 [b]	2.2E-12	8.5E-04	2.6E-09 [b]	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	1.2E-11	3.4E-09	3.5E-03 [b]	1.1E-11	1.4E-07	7.8E-05 [b]	3.4E-12	3.0E-07	1.1E-05 [b]	4.6E-11	4.2E-07	1.1E-04 [b]	1.2E-11	8.5E-05	1.4E-07 [b]	3.4E-12	8.5E-05	4.0E-08 [b]	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	6.9E-12	1.0E-08	6.9E-04 [b]	6.4E-12	4.2E-07	1.5E-05 [b]	2.0E-12	9.0E-07	2.2E-06 [b]	2.7E-11	1.3E-06	2.1E-05 [b]	6.7E-12	2.6E-04	2.6E-08 [b]	2.0E-12	2.6E-04	7.7E-09 [b]	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	6.1E-12	1.0E-08	6.1E-04 [b]	5.7E-12	4.2E-07	1.3E-05 [b]	1.8E-12	9.0E-07	2.0E-06 [b]	2.4E-11	1.3E-06	1.8E-05 [b]	6.0E-12	2.6E-04	2.3E-08 [b]	1.8E-12	2.6E-04	6.8E-09 [b]	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	1.3E-12	1.0E-08	1.3E-04 [b]	1.2E-12	4.2E-07	2.8E-06 [b]	3.8E-13	9.0E-07	4.2E-07 [b]	5.0E-12	1.3E-06	3.9E-06 [b]	1.3E-12	2.6E-04	4.9E-09 [b]	3.8E-13	2.6E-04	1.4E-09 [b]	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	5.1E-12	1.0E-08	5.1E-04 [b]	4.8E-12	4.2E-07	1.1E-05 [b]	1.5E-12	9.0E-07	1.7E-06 [b]	2.0E-11	1.3E-06	1.5E-05 [b]	5.0E-12	2.6E-04	1.9E-08 [b]	1.5E-12	2.6E-04	5.8E-09 [b]	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	1.1E-11	1.0E-07	1.1E-04 [b]	1.0E-11	4.2E-06	2.4E-06 [b]	3.2E-12	9.0E-06	3.6E-07 [b]	4.3E-11	1.3E-05	3.3E-06 [b]	1.1E-11	2.6E-03	4.2E-09 [b]	3.2E-12	2.6E-03	1.2E-09 [b]	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	1.5E-12	1.0E-07	1.5E-05 [b]	1.4E-12	4.2E-06	3.4E-07 [b]	4.5E-13	9.0E-06	5.0E-08 [b]	6.0E-12	1.3E-05	4.6E-07 [b]	1.5E-12	2.6E-03	5.8E-10 [b]	4.5E-13	2.6E-03	1.7E-10 [b]	--
Octachlorodibenzofuran (OCDF)	39001-02-0	9.6E-12	3.4E-06	2.8E-06 [b]	9.0E-12	1.4E-04	6.4E-08 [b]	2.8E-12	3.0E-04	9.4E-09 [b]	3.8E-11	4.2E-04	9.0E-08 [b]	9.5E-12	0.085	1.1E-10 [b]	2.8E-12	0.085	3.3E-11 [b]	--
Total PCBs	1336-36-3	1.5E-08	5.3E-04	2.9E-05 [b]	1.4E-08	9.2E-03	1.5E-06 [b]	4.4E-09	0.020	2.2E-07 [b]	5.9E-08	[9]	--	1.5E-08	[10]	--	4.4E-09	[11]	--	--
2,4-Dinitrotoluene	121-14-2	1.8E-06	0.011	1.7E-04 [b]	1.7E-06	0.13	1.3E-05 [b]	5.3E-07	0.29	1.8E-06 [b]	7.1E-06	[9]	--	1.8E-06	[10]	--	5.3E-07	[11]	--	--
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	9.0E-08	0.080	1.1E-06 [b]	8.3E-08	5.00	1.7E-08 [b]	2.6E-08	11.0	2.4E-09 [b]	3.5E-07	[9]	--	8.8E-08	[10]	--	2.6E-08	[11]	--	--
Hydrogen cyanide	74-90-8	4.0E-05	[6]	--	3.7E-05	[7]	--	1.2E-05	[8]	--	1.5E-04	0.80	1.9E-04 [b]	3.9E-05	3.50	1.1E-05 [b]	1.2E-05	3.50	3.3E-06 [b]	--
Ethylene dichloride (EDC, 1,2-dichloroethane)	107-06-2	5.6E-05	0.038	1.5E-03 [b]	5.2E-05	0.46	1.1E-04 [b]	1.6E-05	1.00	1.6E-05 [b]	2.2E-04	7.00	3.2E-05 [b]	5.5E-05	31.0	1.8E-06 [b]	1.6E-05	31.0	5.3E-07 [b]	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	5.4E-04	0.091	5.9E-03 [b]	5.0E-04	1.10	4.5E-04 [b]	1.6E-04	2.40	6.5E-05 [b]	2.1E-03	60.0	3.5E-05 [b]	5.3E-04	260	2.0E-06 [b]	1.6E-04	260	6.0E-07 [b]	--
2,4,6-Trichlorophenol	88-06-2	3.9E-07	0.050	7.7E-06 [b]	3.6E-07	0.60	6.0E-07 [b]	1.1E-07	1.30	8.7E-08 [b]	1.5E-06	[9]	--	3.8E-07	[10]	--	1.1E-07	[11]	--	--
Pentachlorophenol	87-86-5	4.1E-07	0.20	2.1E-06 [b]	3.8E-07	2.40	1.6E-07 [b]	1.2E-07	5.10	2.4E-08 [b]	1.6E-06	[9]	--	4.1E-07	[10]	--	1.2E-07	[11]	--	--
Tetrachloroethene (Perchloroethylene)	127-18-4	4.7E-05	3.80	1.2E-05 [b]	4.4E-05	46.0	9.6E-07 [b]	1.4E-05	100.0	1.4E-07 [b]	1.9E-04	41.0	4.5E-06 [b]	4.7E-05	180	2.6E-07 [b]	1.4E-05	180	7.7E-08 [b]	--
KILN1_1																				
Cumulative TEU Risk		--	--	**0.83**	--	--	**0.033**	--	--	**2.9E-04**	--	--	**3.5E-03**	--	--	**2.2E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**65.9**			**31.9**			**0.61**			**10.4**			**28.3**			**0.61**			--
Acetaldehyde	75-07-0	0.33	0.45	0.74 [b]	0.16	5.50	0.029 [b]	3.1E-03	12.0	2.5E-04 [b]	0.052	140	3.7E-04 [b]	0.14	620	2.3E-04 [b]	3.1E-03	620	4.9E-06 [b]	--
Acrolein	107-02-8	6.0E-03	[6]	--	2.9E-03	[7]	--	5.5E-05	[8]	--	9.4E-04	0.35	2.7E-03 [b]	2.6E-03	1.50	1.7E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.015	0.17	0.089 [b]	7.4E-03	2.00	3.7E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.4E-03	9.00	2.7E-04 [b]	6.5E-03	40.0	1.6E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.51	[6]	--	0.25	[7]	--	4.7E-03	[8]	--	0.080	4,000	2.0E-05 [b]	0.22	18,000	1.2E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	5.8E-03	[6]	--	2.8E-03	[7]	--	5.3E-05	[8]	--	9.1E-04	8.00	1.1E-04 [b]	2.5E-03	35.0	7.1E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--
KILN1_2																				
Cumulative TEU Risk		--	--	**0.85**	--	--	**0.034**	--	--	**2.9E-04**	--	--	**3.3E-03**	--	--	**2.2E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**67.7**			**32.6**			**0.61**			**10.0**			**28.8**			**0.61**			--
Acetaldehyde	75-07-0	0.34	0.45	0.76 [b]	0.16	5.50	0.030 [b]	3.1E-03	12.0	2.6E-04 [b]	0.051	140	3.6E-04 [b]	0.15	620	2.3E-04 [b]	3.1E-03	620	4.9E-06 [b]	--
Acrolein	107-02-8	6.1E-03	[6]	--	2.9E-03	[7]	--	5.5E-05	[8]	--	9.1E-04	0.35	2.6E-03 [b]	2.6E-03	1.50	1.7E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.092 [b]	7.5E-03	2.00	3.8E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.3E-03	9.00	2.6E-04 [b]	6.6E-03	40.0	1.7E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.52	[6]	--	0.25	[7]	--	4.7E-03	[8]	--	0.077	4,000	1.9E-05 [b]	0.22	18,000	1.2E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	5.9E-03	[6]	--	2.9E-03	[7]	--	5.3E-05	[8]	--	8.8E-04	8.00	1.1E-04 [b]	2.5E-03	35.0	7.2E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--
KILN1_3																				
Cumulative TEU Risk		--	--	**0.87**	--	--	**0.034**	--	--	**2.9E-04**	--	--	**3.2E-03**	--	--	**2.3E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**69.3**			**33.3**			**0.61**			**9.69**			**29.3**			**0.61**			--
Acetaldehyde	75-07-0	0.35	0.45	0.78 [b]	0.17	5.50	0.030 [b]	3.1E-03	12.0	2.6E-04 [b]	0.049	140	3.5E-04 [b]	0.15	620	2.4E-04 [b]	3.1E-03	620	4.9E-06 [b]	--
Acrolein	107-02-8	6.3E-03	[6]	--	3.0E-03	[7]	--	5.5E-05	[8]	--	8.8E-04	0.35	2.5E-03 [b]	2.7E-03	1.50	1.8E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.094 [b]	7.7E-03	2.00	3.8E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.2E-03	9.00	2.5E-04 [b]	6.8E-03	40.0	1.7E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.53	[6]	--	0.26	[7]	--	4.7E-03	[8]	--	0.075	4,000	1.9E-05 [b]	0.23	18,000	1.3E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	6.1E-03	[6]	--	2.9E-03	[7]	--	5.3E-05	[8]	--	8.5E-04	8.00	1.1E-04 [b]	2.6E-03	35.0	7.3E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--

MAUL FOSTER ALONGI

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [(a)] (ug/m^3)	RBC [(2)] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [(a)] (ug/m^3)	RBC [(2)] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [(a)] (ug/m^3)	RBC [(2)] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [(a)] (ug/m^3)	RBC [(2)] (ug/m^3)	Hazard Index	Calculated Conc. [(a)] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [(a)] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [(3)]
KILN1_4																				
Cumulative TEU Risk		--	--	**0.89**	--	--	**0.035**	--	--	**2.9E-04**	--	--	**3.1E-03**	--	--	**2.3E-03**	--	--	**4.7E-05**	--
Dispersion Factor (ug/m^3/[g/s])			**71.0**			**34.0**			**0.61**			**9.37**			**29.9**			**0.61**		--
Acetaldehyde	75-07-0	0.36	0.45	0.80 [b]	0.17	5.50	0.031 [b]	3.1E-03	12.0	2.6E-04 [b]	0.047	140	3.4E-04 [b]	0.15	620	2.4E-04 [b]	3.1E-03	620	5.0E-06 [b]	--
Acrolein	107-02-8	6.4E-03	[6]	--	3.1E-03	[7]	--	5.5E-05	[8]	--	8.5E-04	0.35	2.4E-03 [b]	2.7E-03	1.50	1.8E-03 [b]	5.5E-05	1.50	3.7E-05 [b]	--
Formaldehyde	50-00-0	0.016	0.17	0.096 [b]	7.8E-03	2.00	3.9E-03 [b]	1.4E-04	4.30	3.3E-05 [b]	2.2E-03	9.00	2.4E-04 [b]	6.9E-03	40.0	1.7E-04 [b]	1.4E-04	40.0	3.5E-06 [b]	--
Methanol	67-56-1	0.55	[6]	--	0.26	[7]	--	4.7E-03	[8]	--	0.072	4,000	1.8E-05 [b]	0.23	18,000	1.3E-05 [b]	4.7E-03	18,000	2.6E-07 [b]	--
Propionaldehyde	123-38-6	6.2E-03	[6]	--	3.0E-03	[7]	--	5.3E-05	[8]	--	8.2E-04	8.00	1.0E-04 [b]	2.6E-03	35.0	7.5E-05 [b]	5.3E-05	35.0	1.5E-06 [b]	--
KILN2_1																				
Cumulative TEU Risk		--	--	**1.61**	--	--	**0.074**	--	--	**7.5E-04**	--	--	**7.7E-03**	--	--	**4.9E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**48.1**			**26.9**			**0.59**			**8.65**			**24.1**			**0.59**		--
Acetaldehyde	75-07-0	0.65	0.45	1.44 [b]	0.36	5.50	0.066 [b]	7.9E-03	12.0	6.6E-04 [b]	0.12	140	8.3E-04 [b]	0.32	620	5.2E-04 [b]	7.9E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.012	[6]	--	0.012	[7]	--	1.4E-04	[8]	--	2.1E-03	0.35	6.0E-03 [b]	5.8E-03	1.50	3.9E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.030	0.17	0.17 [b]	0.017	2.00	8.3E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	5.3E-03	9.00	5.9E-04 [b]	0.015	40.0	3.7E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.99	[6]	--	0.55	[7]	--	0.012	[8]	--	0.18	4,000	4.4E-05 [b]	0.49	18,000	2.7E-05 [b]	0.012	18,000	6.7E-07 [b]	--
Propionaldehyde	123-38-6	0.011	[6]	--	6.3E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	8.00	2.5E-04 [b]	5.6E-03	35.0	1.6E-04 [b]	1.4E-04	35.0	3.9E-06 [b]	--
KILN2_2																				
Cumulative TEU Risk		--	--	**1.64**	--	--	**0.076**	--	--	**7.5E-04**	--	--	**7.3E-03**	--	--	**5.1E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**48.9**			**27.8**			**0.59**			**8.25**			**24.7**			**0.59**		--
Acetaldehyde	75-07-0	0.66	0.45	1.46 [b]	0.37	5.50	0.068 [b]	8.0E-03	12.0	6.6E-04 [b]	0.11	140	7.9E-04 [b]	0.33	620	5.4E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.012	[6]	--	6.7E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	0.35	5.7E-03 [b]	6.0E-03	1.50	4.0E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.030	0.17	0.18 [b]	0.017	2.00	8.5E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	5.1E-03	9.00	5.6E-04 [b]	0.015	40.0	3.8E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	1.00	[6]	--	0.57	[7]	--	0.012	[8]	--	0.17	4,000	4.2E-05 [b]	0.51	18,000	2.8E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	0.011	[6]	--	6.5E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	8.00	2.4E-04 [b]	5.8E-03	35.0	1.6E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN2_3																				
Cumulative TEU Risk		--	--	**1.66**	--	--	**0.079**	--	--	**7.5E-04**	--	--	**7.0E-03**	--	--	**5.2E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**49.6**			**28.6**			**0.59**			**7.89**			**25.4**			**0.59**		--
Acetaldehyde	75-07-0	0.67	0.45	1.48 [b]	0.38	5.50	0.070 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	7.6E-04 [b]	0.34	620	5.5E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.012	[6]	--	6.9E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.4E-03 [b]	6.1E-03	1.50	4.1E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.030	0.17	0.18 [b]	0.018	2.00	8.8E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.8E-03	9.00	5.4E-04 [b]	0.016	40.0	3.9E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	1.02	[6]	--	0.59	[7]	--	0.012	[8]	--	0.16	4,000	4.0E-05 [b]	0.52	18,000	2.9E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	0.012	[6]	--	6.7E-03	[7]	--	1.4E-04	[8]	--	1.8E-03	8.00	2.3E-04 [b]	5.9E-03	35.0	1.7E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN3_1																				
Cumulative TEU Risk		--	--	**1.39**	--	--	**0.077**	--	--	**7.5E-04**	--	--	**7.8E-03**	--	--	**5.2E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**41.5**			**28.0**			**0.59**			**8.77**			**25.3**			**0.59**		--
Acetaldehyde	75-07-0	0.56	0.45	1.24 [b]	0.38	5.50	0.068 [b]	8.0E-03	12.0	6.6E-04 [b]	0.12	140	8.4E-04 [b]	0.34	620	5.5E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.010	[6]	--	6.8E-03	[7]	--	1.4E-04	[8]	--	2.1E-03	0.35	6.0E-03 [b]	6.1E-03	1.50	4.1E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.025	0.17	0.15 [b]	0.017	2.00	8.6E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	5.4E-03	9.00	6.0E-04 [b]	0.016	40.0	3.9E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.85	[6]	--	0.58	[7]	--	0.012	[8]	--	0.18	4,000	4.5E-05 [b]	0.52	18,000	2.9E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	9.7E-03	[6]	--	6.5E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	8.00	2.6E-04 [b]	5.9E-03	35.0	1.7E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN3_2																				
Cumulative TEU Risk		--	--	**1.39**	--	--	**0.080**	--	--	**7.5E-04**	--	--	**7.4E-03**	--	--	**5.3E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**41.7**			**28.9**			**0.59**			**8.36**			**26.0**			**0.59**		--
Acetaldehyde	75-07-0	0.56	0.45	1.24 [b]	0.39	5.50	0.071 [b]	8.0E-03	12.0	6.6E-04 [b]	0.11	140	8.0E-04 [b]	0.35	620	5.6E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.010	[6]	--	7.0E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	0.35	5.8E-03 [b]	6.3E-03	1.50	4.2E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.026	0.17	0.15 [b]	0.018	2.00	8.9E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	5.1E-03	9.00	5.7E-04 [b]	0.016	40.0	4.0E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.86	[6]	--	0.59	[7]	--	0.012	[8]	--	0.17	4,000	4.3E-05 [b]	0.53	18,000	3.0E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	9.7E-03	[6]	--	6.7E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	8.00	2.4E-04 [b]	6.1E-03	35.0	1.7E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN3_3																				
Cumulative TEU Risk		--	--	**1.40**	--	--	**0.082**	--	--	**7.5E-04**	--	--	**7.1E-03**	--	--	**5.5E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**41.7**			**29.8**			**0.60**			**7.99**			**26.8**			**0.60**		--
Acetaldehyde	75-07-0	0.56	0.45	1.24 [b]	0.40	5.50	0.073 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	7.7E-04 [b]	0.36	620	5.8E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	0.010	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	0.35	5.5E-03 [b]	6.5E-03	1.50	4.3E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.026	0.17	0.15 [b]	0.018	2.00	9.2E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	4.9E-03	9.00	5.5E-04 [b]	0.016	40.0	4.1E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.86	[6]	--	0.61	[7]	--	0.012	[8]	--	0.16	4,000	4.1E-05 [b]	0.55	18,000	3.1E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	9.7E-03	[6]	--	7.0E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	8.00	2.3E-04 [b]	6.2E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN4_1																				
Cumulative TEU Risk		--	--	**1.19**	--	--	**0.080**	--	--	**7.5E-04**	--	--	**7.9E-03**	--	--	**5.4E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**35.5**			**28.9**			**0.59**			**8.94**			**26.4**			**0.59**		--
Acetaldehyde	75-07-0	0.48	0.45	1.06 [b]	0.39	5.50	0.071 [b]	8.0E-03	12.0	6.6E-04 [b]	0.12	140	8.6E-04 [b]	0.35	620	5.7E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	8.6E-03	[6]	--	7.0E-03	[7]	--	1.4E-04	[8]	--	2.2E-03	0.35	6.2E-03 [b]	6.4E-03	1.50	4.2E-03 [b]	1.4E-04	1.50	9.5E-05 [b]	--
Formaldehyde	50-00-0	0.022	0.17	0.13 [b]	0.018	2.00	8.9E-03 [b]	3.6E-04	4.30	8.5E-05 [b]	5.5E-03	9.00	6.1E-04 [b]	0.016	40.0	4.1E-04 [b]	3.6E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.73	[6]	--	0.59	[7]	--	0.012	[8]	--	0.18	4,000	4.6E-05 [b]	0.54	18,000	3.0E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	8.3E-03	[6]	--	6.8E-03	[7]	--	1.4E-04	[8]	--	2.1E-03	8.00	2.6E-04 [b]	6.2E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN4_2																				
Cumulative TEU Risk		--	--	**1.18**	--	--	**0.082**	--	--	**7.5E-04**	--	--	**7.6E-03**	--	--	**5.6E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**35.4**			**29.9**			**0.59**			**8.52**			**27.2**			**0.59**		--
Acetaldehyde	75-07-0	0.48	0.45	1.06 [b]	0.40	5.50	0.073 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	8.2E-04 [b]	0.36	620	5.9E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	8.5E-03	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	2.1E-03	0.35	5.9E-03 [b]	6.6E-03	1.50	4.4E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.022	0.17	0.13 [b]	0.018	2.00	9.2E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	5.2E-03	9.00	5.8E-04 [b]	0.017	40.0	4.2E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.73	[6]	--	0.61	[7]	--	0.012	[8]	--	0.17	4,000	4.4E-05 [b]	0.56	18,000	3.1E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	8.3E-03	[6]	--	7.0E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	8.00	2.5E-04 [b]	6.3E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN4_3																				
Cumulative TEU Risk		--	--	**1.17**	--	--	**0.085**	--	--	**7.5E-04**	--	--	**7.2E-03**	--	--	**5.8E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**35.1**			**30.8**			**0.60**			**8.13**			**28.0**			**0.60**		--
Acetaldehyde	75-07-0	0.47	0.45	1.05 [b]	0.41	5.50	0.075 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	7.8E-04 [b]	0.38	620	6.1E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	8.5E-03	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	0.35	5.6E-03 [b]	6.8E-03	1.50	4.5E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.022	0.17	0.13 [b]	0.019	2.00	9.5E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	5.0E-03	9.00	5.5E-04 [b]	0.017	40.0	4.3E-04 [b]	3.7E-04	40.0	9.2E-06 [b]	--
Methanol	67-56-1	0.72	[6]	--	0.63	[7]	--	0.012	[8]	--	0.17	4,000	4.2E-05 [b]	0.57	18,000	3.2E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	8.2E-03	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	8.00	2.4E-04 [b]	6.5E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN5_1																				
Cumulative TEU Risk		--	--	**1.01**	--	--	**0.082**	--	--	**7.5E-04**	--	--	**8.1E-03**	--	--	**5.6E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**30.3**			**29.7**			**0.59**			**9.15**			**27.4**			**0.59**		--
Acetaldehyde	75-07-0	0.41	0.45	0.90 [b]	0.40	5.50	0.073 [b]	8.0E-03	12.0	6.7E-04 [b]	0.12	140	8.8E-04 [b]	0.37	620	5.9E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	7.3E-03	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	2.2E-03	0.35	6.3E-03 [b]	6.6E-03	1.50	4.4E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.019	0.17	0.11 [b]	0.018	2.00	9.1E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	5.6E-03	9.00	6.2E-04 [b]	0.017	40.0	4.2E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.62	[6]	--	0.61	[7]	--	0.012	[8]	--	0.19	4,000	4.7E-05 [b]	0.56	18,000	3.1E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	7.1E-03	[6]	--	6.9E-03	[7]	--	1.4E-04	[8]	--	2.1E-03	8.00	2.7E-04 [b]	6.4E-03	35.0	1.8E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN5_2																				
Cumulative TEU Risk		--	--	**1.00**	--	--	**0.084**	--	--	**7.5E-04**	--	--	**7.7E-03**	--	--	**5.8E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**29.9**			**30.7**			**0.60**			**8.70**			**28.3**			**0.60**		--
Acetaldehyde	75-07-0	0.40	0.45	0.89 [b]	0.41	5.50	0.075 [b]	8.0E-03	12.0	6.7E-04 [b]	0.12	140	8.3E-04 [b]	0.38	620	6.1E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	7.2E-03	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	2.1E-03	0.35	6.0E-03 [b]	6.8E-03	1.50	4.6E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.018	0.17	0.11 [b]	0.019	2.00	9.4E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	5.3E-03	9.00	5.9E-04 [b]	0.017	40.0	4.3E-04 [b]	3.7E-04	40.0	9.1E-06 [b]	--
Methanol	67-56-1	0.61	[6]	--	0.63	[7]	--	0.012	[8]	--	0.18	4,000	4.5E-05 [b]	0.58	18,000	3.2E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	7.0E-03	[6]	--	7.2E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	8.00	2.5E-04 [b]	6.6E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--
KILN5_3																				
Cumulative TEU Risk		--	--	**0.99**	--	--	**0.087**	--	--	**7.5E-04**	--	--	**7.4E-03**	--	--	**6.0E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])			**29.5**			**31.7**			**0.60**			**8.29**			**29.2**			**0.60**		--
Acetaldehyde	75-07-0	0.40	0.45	0.88 [b]	0.43	5.50	0.077 [b]	8.0E-03	12.0	6.7E-04 [b]	0.11	140	8.0E-04 [b]	0.39	620	6.3E-04 [b]	8.0E-03	620	1.3E-05 [b]	--
Acrolein	107-02-8	7.1E-03	[6]	--	7.7E-03	[7]	--	1.4E-04	[8]	--	2.0E-03	0.35	5.7E-03 [b]	7.0E-03	1.50	4.7E-03 [b]	1.4E-04	1.50	9.6E-05 [b]	--
Formaldehyde	50-00-0	0.018	0.17	0.11 [b]	0.019	2.00	9.7E-03 [b]	3.7E-04	4.30	8.5E-05 [b]	5.1E-03	9.00	5.7E-04 [b]	0.018	40.0	4.5E-04 [b]	3.7E-04	40.0	9.2E-06 [b]	--
Methanol	67-56-1	0.61	[6]	--	0.65	[7]	--	0.012	[8]	--	0.17	4,000	4.3E-05 [b]	0.60	18,000	3.3E-05 [b]	0.012	18,000	6.8E-07 [b]	--
Propionaldehyde	123-38-6	6.9E-03	[6]	--	7.4E-03	[7]	--	1.4E-04	[8]	--	1.9E-03	8.00	2.4E-04 [b]	6.8E-03	35.0	1.9E-04 [b]	1.4E-04	35.0	4.0E-06 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Hazard Index	Calculated Conc. (a) (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. (a) (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index (3)
KILN6_1																				
Cumulative TEU Risk		--	--	**0.87**	--	--	**0.083**	--	--	**7.5E-04**	--	--	**8.3E-03**	--	--	**5.8E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**26.1**			**30.2**			**0.60**			**9.41**			**28.3**			**0.60**			--
Acetaldehyde	75-07-0	0.35	0.45	0.78 (b)	0.41	5.50	0.074 (b)	8.0E-03	12.0	6.7E-04 (b)	0.13	140	9.0E-04 (b)	0.38	620	6.1E-04 (b)	8.0E-03	620	1.3E-05 (b)	--
Acrolein	107-02-8	6.3E-03	(6)	--	7.3E-03	(7)	--	1.4E-04	(8)	--	2.3E-03	0.35	6.5E-03 (b)	6.8E-03	1.50	4.6E-03 (b)	1.4E-04	1.50	9.6E-05 (b)	--
Formaldehyde	50-00-0	0.016	0.17	0.094 (b)	0.019	2.00	9.3E-03 (b)	3.7E-04	4.30	8.5E-05 (b)	5.8E-03	9.00	6.4E-04 (b)	0.017	40.0	4.4E-04 (b)	3.7E-04	40.0	9.1E-06 (b)	--
Methanol	67-56-1	0.54	(6)	--	0.62	(7)	--	0.012	(8)	--	0.19	4,000	4.8E-05 (b)	0.58	18,000	3.2E-05 (b)	0.012	18,000	6.8E-07 (b)	--
Propionaldehyde	123-38-6	6.1E-03	(6)	--	7.1E-03	(7)	--	1.4E-04	(8)	--	2.2E-03	8.00	2.7E-04 (b)	6.6E-03	35.0	1.9E-04 (b)	1.4E-04	35.0	4.0E-06 (b)	--
KILN6_2																				
Cumulative TEU Risk		--	--	**0.86**	--	--	**0.086**	--	--	**7.5E-04**	--	--	**7.9E-03**	--	--	**6.0E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**25.7**			**31.2**			**0.60**			**8.94**			**29.2**			**0.60**			--
Acetaldehyde	75-07-0	0.35	0.45	0.77 (b)	0.42	5.50	0.076 (b)	8.0E-03	12.0	6.7E-04 (b)	0.12	140	8.6E-04 (b)	0.39	620	6.3E-04 (b)	8.0E-03	620	1.3E-05 (b)	--
Acrolein	107-02-8	6.2E-03	(6)	--	7.5E-03	(7)	--	1.4E-04	(8)	--	2.2E-03	0.35	6.2E-03 (b)	7.0E-03	1.50	4.7E-03 (b)	1.4E-04	1.50	9.6E-05 (b)	--
Formaldehyde	50-00-0	0.016	0.17	0.093 (b)	0.019	2.00	9.6E-03 (b)	3.7E-04	4.30	8.5E-05 (b)	5.5E-03	9.00	6.1E-04 (b)	0.018	40.0	4.5E-04 (b)	3.7E-04	40.0	9.2E-06 (b)	--
Methanol	67-56-1	0.53	(6)	--	0.64	(7)	--	0.012	(8)	--	0.18	4,000	4.6E-05 (b)	0.60	18,000	3.3E-05 (b)	0.012	18,000	6.8E-07 (b)	--
Propionaldehyde	123-38-6	6.0E-03	(6)	--	7.3E-03	(7)	--	1.4E-04	(8)	--	2.1E-03	8.00	2.6E-04 (b)	6.8E-03	35.0	1.9E-04 (b)	1.4E-04	35.0	4.0E-06 (b)	--
KILN6_3																				
Cumulative TEU Risk		--	--	**0.85**	--	--	**0.089**	--	--	**7.5E-04**	--	--	**7.6E-03**	--	--	**6.2E-03**	--	--	**1.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**25.3**			**32.2**			**0.60**			**8.51**			**30.2**			**0.60**			--
Acetaldehyde	75-07-0	0.34	0.45	0.76 (b)	0.43	5.50	0.079 (b)	8.0E-03	12.0	6.7E-04 (b)	0.11	140	8.2E-04 (b)	0.41	620	6.5E-04 (b)	8.0E-03	620	1.3E-05 (b)	--
Acrolein	107-02-8	6.1E-03	(6)	--	7.8E-03	(7)	--	1.4E-04	(8)	--	2.1E-03	0.35	5.9E-03 (b)	7.3E-03	1.50	4.9E-03 (b)	1.4E-04	1.50	9.6E-05 (b)	--
Formaldehyde	50-00-0	0.016	0.17	0.091 (b)	0.020	2.00	9.9E-03 (b)	3.7E-04	4.30	8.5E-05 (b)	5.2E-03	9.00	5.8E-04 (b)	0.019	40.0	4.6E-04 (b)	3.7E-04	40.0	9.2E-06 (b)	--
Methanol	67-56-1	0.52	(6)	--	0.66	(7)	--	0.012	(8)	--	0.17	4,000	4.4E-05 (b)	0.62	18,000	3.4E-05 (b)	0.012	18,000	6.8E-07 (b)	--
Propionaldehyde	123-38-6	5.9E-03	(6)	--	7.5E-03	(7)	--	1.4E-04	(8)	--	2.0E-03	8.00	2.5E-04 (b)	7.0E-03	35.0	2.0E-04 (b)	1.4E-04	35.0	4.0E-06 (b)	--
RF12_STK																				
Cumulative TEU Risk		--	--	**0.14**	--	--	**0.016**	--	--	**7.5E-04**	--	--	**0.016**	--	--	**6.1E-03**	--	--	**5.2E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**3.39**			**4.58**			**0.47**			**3.23**			**5.43**			**0.47**			--
Acetaldehyde	75-07-0	0.048	0.45	0.11 (b)	0.065	5.50	0.012 (b)	6.6E-03	12.0	5.5E-04 (b)	0.046	140	3.3E-04 (b)	0.078	620	1.3E-04 (b)	6.6E-03	620	1.1E-05 (b)	--
Acetone	67-64-1	5.8E-03	(6)	--	7.9E-03	(7)	--	8.0E-04	(8)	--	5.5E-03	31,000	1.8E-07 (b)	9.3E-03	140,000	6.7E-08 (b)	8.0E-04	140,000	5.7E-09 (b)	--
Acrolein	107-02-8	5.3E-03	(6)	--	7.2E-03	(7)	--	7.3E-04	(8)	--	5.1E-03	0.35	0.014 (b)	8.5E-03	1.50	5.7E-03 (b)	7.3E-04	1.50	4.9E-04 (b)	--
Formaldehyde	50-00-0	6.1E-03	0.17	0.036 (b)	8.2E-03	2.00	4.1E-03 (b)	8.4E-04	4.30	1.9E-04 (b)	5.8E-03	9.00	6.5E-04 (b)	9.8E-03	40.0	2.4E-04 (b)	8.4E-04	40.0	2.1E-05 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	4.3E-04	(6)	--	5.9E-04	(7)	--	6.0E-05	(8)	--	4.1E-04	3,000	1.4E-07 (b)	7.0E-04	13,000	5.4E-08 (b)	6.0E-05	13,000	4.6E-09 (b)	--
Methanol	67-56-1	3.5E-03	(6)	--	4.8E-03	(7)	--	4.8E-04	(8)	--	3.4E-03	4,000	8.4E-07 (b)	5.6E-03	18,000	3.1E-07 (b)	4.8E-04	18,000	2.7E-08 (b)	--
2-Butanone (Methyl ethyl ketone)	78-93-3	2.5E-04	(6)	--	3.3E-04	(7)	--	3.4E-05	(8)	--	2.3E-04	5,000	4.7E-08 (b)	3.9E-04	22,000	1.8E-08 (b)	3.4E-05	22,000	1.5E-09 (b)	--
Propionaldehyde	123-38-6	6.6E-04	(6)	--	9.0E-04	(7)	--	9.1E-05	(8)	--	6.3E-04	8.00	7.9E-05 (b)	1.1E-03	35.0	3.0E-05 (b)	9.1E-05	35.0	2.6E-06 (b)	--
Styrene	100-42-5	3.2E-04	(6)	--	4.3E-04	(7)	--	4.4E-05	(8)	--	3.0E-04	1,000	3.0E-07 (b)	5.1E-04	4,400	1.2E-07 (b)	4.4E-05	4,400	1.0E-08 (b)	--
PVUV_STK																				
Cumulative TEU Risk		--	--	**0.33**	--	--	**0.025**	--	--	**1.8E-03**	--	--	**0.013**	--	--	**1.3E-03**	--	--	**1.9E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**0.81**			**0.72**			**0.11**			**1.72**			**0.74**			**0.11**			--
Acetaldehyde	75-07-0	4.0E-03	0.45	8.9E-03 (b)	3.6E-03	5.50	6.5E-04 (b)	5.4E-04	12.0	4.5E-05 (b)	8.5E-03	140	6.1E-05 (b)	3.7E-03	620	5.9E-06 (b)	5.4E-04	620	8.8E-07 (b)	--
Acetone	67-64-1	4.7E-03	(6)	--	4.2E-03	(7)	--	6.4E-04	(8)	--	0.010	31,000	3.2E-07 (b)	4.3E-03	140,000	3.1E-08 (b)	6.4E-04	140,000	4.6E-09 (b)	--
Formaldehyde	50-00-0	0.055	0.17	0.33 (b)	0.049	2.00	0.025 (b)	7.5E-03	4.30	1.7E-03 (b)	0.12	9.00	0.013 (b)	0.051	40.0	1.3E-03 (b)	7.5E-03	40.0	1.9E-04 (b)	--
Methanol	67-56-1	0.045	(6)	--	0.040	(7)	--	6.1E-03	(8)	--	0.094	4,000	2.4E-05 (b)	0.041	18,000	2.3E-06 (b)	6.1E-03	18,000	3.4E-07 (b)	--
FORM_STK																				
Cumulative TEU Risk		--	--	**0.095**	--	--	**0.011**	--	--	**3.7E-04**	--	--	**6.3E-03**	--	--	**2.6E-03**	--	--	**1.4E-04**	--
Dispersion Factor (ug/m^3/[g/s])		**5.56**			**7.94**			**0.56**			**5.74**			**10.1**			**0.56**			--
Acetaldehyde	75-07-0	0.021	0.45	0.046 (b)	0.030	5.50	5.4E-03 (b)	2.1E-03	12.0	1.8E-04 (b)	0.022	140	1.5E-04 (b)	0.038	620	6.1E-05 (b)	2.1E-03	620	3.4E-06 (b)	--
Acetone	67-64-1	9.2E-03	(6)	--	0.013	(7)	--	9.3E-04	(8)	--	9.5E-03	31,000	3.1E-07 (b)	0.017	140,000	1.2E-07 (b)	9.3E-04	140,000	6.7E-09 (b)	--
Acrolein	107-02-8	1.8E-03	(6)	--	2.5E-03	(7)	--	1.8E-04	(8)	--	1.8E-03	0.35	5.2E-03 (b)	3.2E-03	1.50	2.1E-03 (b)	1.8E-04	1.50	1.2E-04 (b)	--
Formaldehyde	50-00-0	8.3E-03	0.17	0.049 (b)	0.012	2.00	5.9E-03 (b)	8.4E-04	4.30	2.0E-04 (b)	8.5E-03	9.00	9.5E-04 (b)	0.015	40.0	3.8E-04 (b)	8.4E-04	40.0	2.1E-05 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	6.6E-04	(6)	--	9.4E-04	(7)	--	6.7E-05	(8)	--	6.8E-04	3,000	2.3E-07 (b)	1.2E-03	13,000	9.2E-08 (b)	6.7E-05	13,000	5.1E-09 (b)	--
Methanol	67-56-1	0.047	(6)	--	0.067	(7)	--	4.8E-03	(8)	--	0.049	4,000	1.2E-05 (b)	0.086	18,000	4.8E-06 (b)	4.8E-03	18,000	2.7E-07 (b)	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.3E-03	(6)	--	1.8E-03	(7)	--	1.3E-04	(8)	--	1.3E-03	5,000	2.7E-07 (b)	2.3E-03	22,000	1.1E-07 (b)	1.3E-04	22,000	6.0E-09 (b)	--
Toluene	108-88-3	1.3E-03	(6)	--	1.9E-03	(7)	--	1.3E-04	(8)	--	1.3E-03	5,000	2.7E-07 (b)	2.4E-03	22,000	1.1E-07 (b)	1.3E-04	22,000	6.0E-09 (b)	--
HEADBOX																				
Cumulative TEU Risk		--	--	**0.012**	--	--	**1.8E-03**	--	--	**8.1E-05**	--	--	**1.5E-04**	--	--	**5.5E-05**	--	--	**4.7E-06**	--
Dispersion Factor (ug/m^3/[g/s])		**3.56**			**6.32**			**0.63**			**4.42**			**7.37**			**0.63**			--
Acetaldehyde	75-07-0	3.6E-03	0.45	8.1E-03 (b)	6.5E-03	5.50	1.2E-03 (b)	6.4E-04	12.0	5.4E-05 (b)	4.5E-03	140	3.2E-05 (b)	7.5E-03	620	1.2E-05 (b)	6.4E-04	620	1.0E-06 (b)	--
Acetone	67-64-1	9.6E-04	(6)	--	1.7E-03	(7)	--	1.7E-04	(8)	--	1.2E-03	31,000	3.8E-08 (b)	2.0E-03	140,000	1.4E-08 (b)	1.7E-04	140,000	1.2E-09 (b)	--
Acrolein	107-02-8	3.6E-23	(6)	--	6.4E-23	(7)	--	6.4E-24	(8)	--	4.5E-23	0.35	1.3E-22 (b)	7.4E-23	1.50	5.0E-23 (b)	6.4E-24	1.50	4.2E-24 (b)	--
Formaldehyde	50-00-0	6.8E-04	0.17	4.0E-03 (b)	1.2E-03	2.00	6.0E-04 (b)	1.2E-04	4.30	2.8E-05 (b)	8.4E-04	9.00	9.3E-05 (b)	1.4E-03	40.0	3.5E-05 (b)	1.2E-04	40.0	3.0E-06 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.2E-03	(6)	--	2.2E-03	(7)	--	2.2E-04	(8)	--	1.5E-03	3,000	5.2E-07 (b)	2.6E-03	13,000	2.0E-07 (b)	2.2E-04	13,000	1.7E-08 (b)	--
Phenol	108-95-2	7.6E-06	(6)	--	1.3E-05	(7)	--	1.3E-06	(8)	--	9.4E-06	200	4.7E-08 (b)	1.6E-05	880	1.8E-08 (b)	1.3E-06	880	1.5E-09 (b)	--
Propionaldehyde	123-38-6	1.3E-04	(6)	--	2.4E-04	(7)	--	2.4E-05	(8)	--	1.7E-04	8.00	2.1E-05 (b)	2.8E-04	35.0	7.9E-06 (b)	2.4E-05	35.0	6.8E-07 (b)	--
S_CYC																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**3.5E-06**	--	--	**1.2E-06**	--	--	**4.9E-08**	--
Dispersion Factor (ug/m^3/[g/s])		**6.44**			**12.7**			**0.62**			**9.73**			**15.5**			**0.62**			--
Methanol	67-56-1	9.2E-03	(6)	--	0.018	(7)	--	8.9E-04	(8)	--	0.014	4,000	3.5E-06 (b)	0.022	18,000	1.2E-06 (b)	8.9E-04	18,000	4.9E-08 (b)	--
SM_CHP																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**4.4E-06**	--	--	**1.7E-06**	--	--	**1.9E-08**	--
Dispersion Factor (ug/m^3/[g/s])		**37.7**			**52.6**			**0.61**			**31.2**			**55.0**			**0.61**			--
Methanol	67-56-1	0.021	(6)	--	0.030	(7)	--	3.4E-04	(8)	--	0.017	4,000	4.4E-06 (b)	0.031	18,000	1.7E-06 (b)	3.4E-04	18,000	1.9E-08 (b)	--
FIRE																				
Cumulative TEU Risk		--	--	**0.076**	--	--	**5.1E-03**	--	--	**2.5E-04**	--	--	**1.6E-03**	--	--	**3.4E-04**	--	--	**1.6E-05**	--
Dispersion Factor (ug/m^3/[g/s])		**5.75**			**11.1**			**0.64**			**8.85**			**13.6**			**0.64**			--
Antimony and compounds	7440-36-0	1.9E-08	(6)	--	3.7E-08	(7)	--	2.1E-09	(8)	--	2.9E-08	0.30	9.7E-08 (b)	4.5E-08	1.30	3.4E-08 (b)	2.1E-09	1.30	1.6E-09 (b)	--
Arsenic and compounds	7440-38-2	9.5E-08	2.4E-05	4.0E-03 (b)	1.8E-07	6.2E-04	3.0E-04 (b)	1.1E-08	1.3E-03	8.2E-06 (b)	1.5E-07	1.7E-04	8.6E-04 (b)	2.3E-07	2.4E-03	9.4E-05 (b)	1.1E-08	2.4E-03	4.4E-06 (b)	--
Barium and compounds	7440-39-3	2.2E-08	(6)	--	4.3E-08	(7)	--	2.5E-09	(8)	--	3.4E-08	(9)	--	5.3E-08	(10)	--	2.5E-09	(11)	--	--
Beryllium and compounds	7440-41-7	2.8E-10	4.2E-04	6.8E-07 (b)	5.5E-10	5.0E-03	1.1E-07 (b)	3.2E-11	0.011	2.9E-09 (b)	4.4E-10	7.0E-03	6.2E-08 (b)	6.7E-10	0.031	2.2E-08 (b)	3.2E-11	0.031	1.0E-09 (b)	--
Cadmium and compounds	7440-43-9	8.9E-08	5.6E-04	1.6E-04 (b)	1.7E-07	6.7E-03	2.6E-05 (b)	1.0E-08	0.014	7.1E-07 (b)	1.4E-07	5.0E-03	2.8E-05 (b)	2.1E-07	0.037	5.7E-06 (b)	1.0E-08	0.037	2.7E-07 (b)	--
Chromium VI	18540-29-9	6.0E-09	3.1E-05	1.9E-04 (b)	1.2E-08	1.0E-03	1.2E-05 (b)	6.7E-10	5.2E-04	1.3E-06 (b)	9.2E-09	0.083	1.1E-07 (b)	1.4E-08	0.88	1.6E-08 (b)	6.7E-10	0.88	7.6E-10 (b)	--
Cobalt and compounds	7440-48-4	9.4E-10	(6)	--	1.8E-09	(7)	--	1.1E-10	(8)	--	1.4E-09	0.10	1.4E-08 (b)	2.2E-09	0.44	5.0E-09 (b)	1.1E-10	0.44	2.4E-10 (b)	--
Copper and compounds	7440-50-8	2.4E-07	(6)	--	4.7E-07	(7)	--	2.7E-08	(8)	--	3.8E-07	(9)	--	5.8E-07	(10)	--	2.7E-08	(11)	--	--
Lead and compounds	7439-92-1	4.9E-07	(6)	--	9.6E-07	(7)	--	5.5E-08	(8)	--	7.6E-07	0.15	5.1E-06 (b)	1.2E-06	0.66	1.8E-06 (b)	5.5E-08	0.66	8.4E-08 (b)	--
Phosphorus and compounds	504	5.0E-07	(6)	--	9.7E-07	(7)	--	5.6E-08	(8)	--	7.7E-07	(9)	--	1.2E-06	(10)	--	5.6E-08	(11)	--	--
Manganese and compounds	7439-96-5	1.8E-07	(6)	--	3.6E-07	(7)	--	2.1E-08	(8)	--	2.8E-07	0.090	3.2E-06 (b)	4.4E-07	0.40	1.1E-06 (b)	2.1E-08	0.40	5.2E-08 (b)	--
Mercury and compounds	7439-97-6	1.2E-07	(6)	--	2.3E-07	(7)	--	1.3E-08	(8)	--	1.8E-07	0.077	2.4E-06 (b)	2.8E-07	0.63	4.5E-07 (b)	1.3E-08	0.63	2.1E-08 (b)	--
Nickel and compounds	365	2.3E-07	3.8E-03	6.1E-05 (b)	4.5E-07	0.046	9.8E-06 (b)	2.6E-08	0.10	2.6E-07 (b)	3.6E-07	0.014	2.6E-05 (b)	5.5E-07	0.062	8.9E-06 (b)	2.6E-08	0.062	4.2E-07 (b)	--
Selenium and compounds	7782-49-2	1.3E-07	(6)	--	2.5E-07	(7)	--	1.5E-08	(8)	--	2.0E-07	(9)	--	3.1E-07	(10)	--	1.5E-08	(11)	--	--
Silver and compounds	7440-22-4	2.9E-09	(6)	--	5.5E-09	(7)	--	3.2E-10	(8)	--	4.4E-09	(9)	--	6.8E-09	(10)	--	3.2E-10	(11)	--	--
Thailium and compounds	7440-28-0	1.4E-08	(6)	--	2.8E-08	(7)	--	1.6E-09	(8)	--	2.2E-08	(9)	--	3.4E-08	(10)	--	1.6E-09	(11)	--	--
Zinc and compounds	7440-66-6	3.1E-07	(6)	--	6.0E-07	(7)	--	3.5E-08	(8)	--	4.8E-07	(9)	--	7.4E-07	(10)	--	3.5E-08	(11)	--	--
Acetaldehyde	75-07-0	4.7E-05	0.45	1.0E-04 (b)	9.0E-05	5.50	1.6E-05 (b)	5.2E-06	12.0	4.4E-07 (b)	7.2E-05	140	5.1E-07 (b)	1.1E-04	620	1.8E-07 (b)	5.2E-06	620	8.4E-09 (b)	--
Acrolein	107-02-8	2.0E-06	(6)	--	3.9E-06	(7)	--	2.3E-07	(8)	--	3.1E-06	0.35	8.9E-06 (b)	4.8E-06	1.50	3.2E-06 (b)	2.3E-07	1.50	1.5E-07 (b)	--
Ammonia	7664-41-7	1.7E-04	(6)	--	3.3E-04	(7)	--	1.9E-05	(8)	--	2.7E-04	500	5.3E-07 (b)	4.1E-04	2,200	1.9E-07 (b)	1.9E-05	2,200	8.8E-09 (b)	--
Benzene	71-43-2	1.1E-05	0.13	8.5E-05 (b)	2.1E-05	1.50	1.4E-05 (b)	1.2E-06	3.30	3.8E-07 (b)	1.7E-05	3.00	5.7E-06 (b)	2.6E-05	13.0	2.0E-06 (b)	1.2E-06	13.0	9.6E-08 (b)	--
Chlorobenzene	108-90-7	1.2E-08	(6)	--	2.3E-08	(7)	--	1.3E-09	(8)	--	1.8E-08	50.0	3.7E-10 (b)	2.8E-08	220	1.3E-10 (b)	1.3E-09	220	6.1E-12 (b)	--
Ethyl benzene	100-41-4	6.5E-07	0.40	1.6E-06 (b)	1.3E-06	4.80	2.6E-07 (b)	7.3E-08	10.0	7.3E-09 (b)	1.0E-06	260	3.8E-09 (b)	1.5E-06	1,100	1.4E-09 (b)	7.3E-08	1,100	6.6E-11 (b)	--
Formaldehyde	50-00-0	1.0E-04	0.17	6.1E-04 (b)	2.0E-04	2.00	9.9E-05 (b)	1.2E-05	4.30	2.7E-06 (b)	1.6E-04	9.00	1.8E-05 (b)	2.4E-04	40.0	6.1E-06 (b)	1.2E-05	40.0	2.9E-07 (b)	--
Hexane	110-54-3	1.6E-06	(6)	--	3.1E-06	(7)	--	1.8E-07	(8)	--	2.5E-06	700	3.5E-09 (b)	3.8E-06	3,100	1.2E-09 (b)	1.8E-07	3,100	5.8E-11 (b)	--
1,3-Butadiene	106-99-0	1.3E-05	0.033	3.9E-04 (b)	2.5E-05	0.40	6.3E-05 (b)	1.4E-06	0.86	1.7E-06 (b)	2.0E-05	2.00	1.0E-05 (b)	3.1E-05	8.80	3.5E-06 (b)	1.4E-06	8.80	1.6E-07 (b)	--
Propylene	115-07-1	2.8E-05	(6)	--	5.4E-05	(7)	--	3.1E-06	(8)	--	4.3E-05	3,000	1.4E-08 (b)	6.6E-05	13,000	5.1E-09 (b)	3.1E-06	13,000	2.4E-10 (b)	--
Toluene	108-88-3	6.3E-06	(6)	--	1.2E-05	(7)	--	7.0E-07	(8)	--	9.7E-06	5,000	1.9E-09 (b)	1.5E-05	22,000	6.7E-10 (b)	7.0E-07	22,000	3.2E-11 (b)	--
Xylene (mixture)	1330-20-7	2.5E-06	(6)	--	4.9E-06	(7)	--	2.8E-07	(8)	--	3.9E-06	220	1.8E-08 (b)	6.0E-06	970	6.2E-09 (b)	2.8E-07	970	2.9E-10 (b)	--
Hydrochloric acid	7647-01-0	1.1E-05	(6)	--	2.1E-05	(7)	--	1.2E-06	(8)	--	1.7E-05	20.0	8.5E-07 (b)	2.6E-05	88.0	3.0E-07 (b)	1.2E-06	88.0	1.4E-08 (b)	--
DPM	200	2.0E-03	0.10	0.020 (b)	3.9E-03	1.20	3.2E-03 (b)	2.2E-04	2.60	8.6E-05 (b)	3.1E-03	5.00	6.1E-04 (b)	4.7E-03	22.0	2.1E-04 (b)	2.2E-04	22.0	1.0E-05 (b)	--
PAHs (excluding Naphthalene)	401	2.2E-06	4.3E-05	0.050 (b)	4.2E-06	3.0E-03	1.4E-03 (b)	2.4E-07	1.6E-03	1.5E-04 (b)	3.3E-06	(9)	--	5.1E-06	(10)	--	2.4E-07	(11)	--	--
Benzo[a]pyrene	50-32-8	2.1E-09	4.3E-05	4.9E-05 (b)	4.1E-09	3.0E-03	1.4E-06 (b)	2.3E-10	1.6E-03	1.5E-07 (b)	3.2E-09	2.0E-03	1.6E-06 (b)	5.0E-09	8.8E-03	5.6E-07 (b)	2.3E-10	8.8E-03	2.7E-08 (b)	--
Naphthalene	91-20-3	1.2E-06	0.029	4.0E-05 (b)	2.3E-06	0.35	6.5E-06 (b)	1.3E-07	0.76	1.7E-07 (b)	1.8E-06	3.70	4.9E-07 (b)	2.8E-06	16.0	1.7E-07 (b)	1.3E-07	16.0	8.2E-09 (b)	--

MAUL FOSTER ALONGI

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Hazard Index [3]
BGEN																				
Cumulative TEU Risk		--	--	**0.33**	--	--	**0.012**	--	--	**1.1E-03**	--	--	**5.7E-03**	--	--	**7.9E-04**	--	--	**4.9E-05**	--
Dispersion Factor (ug/m³/[g/s])		**5.43**			**8.78**			**0.65**			**7.96**			**10.5**			**0.65**			--
Antimony and compounds	7440-36-0	1.0E-07	[6]	--	1.6E-07	[7]	--	1.2E-08	[8]	--	1.5E-07	0.30	5.0E-07 [b]	2.0E-07	1.30	1.5E-07 [b]	1.2E-08	1.30	9.3E-09 [b]	--
Arsenic and compounds	7440-38-2	5.1E-07	2.4E-05	0.021 [b]	8.3E-07	6.2E-04	1.3E-03 [b]	6.1E-08	1.3E-03	4.7E-05 [b]	7.5E-07	1.7E-04	4.4E-03 [b]	9.9E-07	2.4E-03	4.1E-04 [b]	6.1E-08	2.4E-03	2.5E-05 [b]	--
Barium and compounds	7440-39-3	1.2E-07	[6]	--	1.9E-07	[7]	--	1.4E-08	[8]	--	1.7E-07	[9]	--	2.3E-07	[10]	--	1.4E-08	[11]	--	--
Beryllium and compounds	7440-41-7	1.5E-09	4.2E-04	3.6E-06 [b]	2.5E-09	5.0E-03	4.9E-07 [b]	1.8E-10	0.011	1.6E-08 [b]	2.2E-09	7.0E-03	3.2E-07 [b]	3.0E-09	0.031	9.5E-08 [b]	1.8E-10	0.031	5.8E-09 [b]	--
Cadmium and compounds	7440-43-9	4.8E-07	5.6E-04	8.5E-04 [b]	7.7E-07	6.7E-03	1.2E-04 [b]	5.7E-08	0.014	4.1E-06 [b]	7.0E-07	5.0E-03	1.4E-04 [b]	9.3E-07	0.037	2.5E-05 [b]	5.7E-08	0.037	1.5E-06 [b]	--
Chromium VI	18540-29-9	3.2E-08	3.1E-05	1.0E-03 [b]	5.2E-08	1.0E-03	5.2E-05 [b]	3.8E-09	5.2E-04	7.3E-06 [b]	4.7E-08	0.083	5.6E-07 [b]	6.2E-08	0.88	7.0E-08 [b]	3.8E-09	0.88	4.3E-09 [b]	--
Cobalt and compounds	7440-48-4	5.0E-09	[6]	--	8.1E-09	[7]	--	6.0E-10	[8]	--	7.4E-09	0.10	7.4E-08 [b]	9.7E-09	0.44	2.2E-08 [b]	6.0E-10	0.44	1.4E-09 [b]	--
Copper and compounds	7440-50-8	1.3E-06	[6]	--	2.1E-06	[7]	--	1.6E-07	[8]	--	1.9E-06	[9]	--	2.5E-06	[10]	--	1.6E-07	[11]	--	--
Lead and compounds	7439-92-1	2.6E-06	[6]	--	4.3E-06	[7]	--	3.1E-07	[8]	--	3.9E-06	0.15	2.6E-05 [b]	5.1E-06	0.66	7.8E-06 [b]	3.1E-07	0.66	4.8E-07 [b]	--
Phosphorus and compounds	504	2.7E-06	[6]	--	4.3E-06	[7]	--	3.2E-07	[8]	--	3.9E-06	[9]	--	5.2E-06	[10]	--	3.2E-07	[11]	--	--
Manganese and compounds	7439-96-5	9.9E-07	[6]	--	1.6E-06	[7]	--	1.2E-07	[8]	--	1.4E-06	0.090	1.6E-05 [b]	1.9E-06	0.40	4.8E-06 [b]	1.2E-07	0.40	2.9E-07 [b]	--
Mercury and compounds	7439-97-6	6.4E-07	[6]	--	1.0E-06	[7]	--	7.6E-08	[8]	--	9.3E-07	0.077	1.2E-05 [b]	1.2E-06	0.63	2.0E-06 [b]	7.6E-08	0.63	1.2E-07 [b]	--
Nickel and compounds	365	1.2E-06	3.8E-03	3.3E-04 [b]	2.0E-06	0.046	4.4E-05 [b]	1.5E-07	0.10	1.5E-06 [b]	1.8E-06	0.014	1.3E-04 [b]	2.4E-06	0.062	3.9E-05 [b]	1.5E-07	0.062	2.4E-06 [b]	--
Selenium and compounds	7782-49-2	7.0E-07	[6]	--	1.1E-06	[7]	--	8.3E-08	[8]	--	1.0E-06	[9]	--	1.4E-06	[10]	--	8.3E-08	[11]	--	--
Silver and compounds	7440-22-4	1.5E-08	[6]	--	2.5E-08	[7]	--	1.8E-09	[8]	--	2.2E-08	[9]	--	3.0E-08	[10]	--	1.8E-09	[11]	--	--
Thallium and compounds	7440-28-0	7.7E-08	[6]	--	1.2E-07	[7]	--	9.1E-09	[8]	--	1.1E-07	[9]	--	1.5E-07	[10]	--	9.1E-09	[11]	--	--
Zinc and compounds	7440-66-6	1.7E-06	[6]	--	2.7E-06	[7]	--	2.0E-07	[8]	--	2.4E-06	[9]	--	3.2E-06	[10]	--	2.0E-07	[11]	--	--
Acetaldehyde	75-07-0	2.5E-04	0.45	5.6E-04 [b]	4.0E-04	5.50	7.3E-05 [b]	3.0E-05	12.0	2.5E-06 [b]	3.7E-04	140	2.6E-06 [b]	4.8E-04	620	7.8E-07 [b]	3.0E-05	620	4.8E-08 [b]	--
Acrolein	107-02-8	1.1E-05	[6]	--	1.7E-05	[7]	--	1.3E-06	[8]	--	1.6E-05	0.35	4.5E-05 [b]	2.1E-05	1.50	1.4E-05 [b]	1.3E-06	1.50	8.6E-07 [b]	--
Ammonia	7664-41-7	9.3E-04	[6]	--	1.5E-03	[7]	--	1.1E-04	[8]	--	1.4E-03	500	2.7E-06 [b]	1.8E-03	2,200	8.2E-07 [b]	1.1E-04	2,200	5.0E-08 [b]	--
Benzene	71-43-2	5.9E-05	0.13	4.6E-04 [b]	9.6E-05	1.50	6.4E-05 [b]	7.1E-06	3.30	2.1E-06 [b]	8.7E-05	3.00	2.9E-05 [b]	1.2E-04	13.0	8.9E-06 [b]	7.1E-06	13.0	5.4E-07 [b]	--
Chlorobenzene	108-90-7	6.4E-08	[6]	--	1.0E-07	[7]	--	7.6E-09	[8]	--	9.3E-08	50.0	1.9E-09 [b]	1.2E-07	220	5.6E-10 [b]	7.6E-09	220	3.4E-11 [b]	--
Ethyl benzene	100-41-4	3.5E-06	0.40	8.7E-06 [b]	5.6E-06	4.80	1.2E-06 [b]	4.1E-07	10.0	4.1E-08 [b]	5.1E-06	260	2.0E-08 [b]	6.7E-06	1,100	6.1E-09 [b]	4.1E-07	1,100	3.8E-10 [b]	--
Formaldehyde	50-00-0	5.5E-04	0.17	3.2E-03 [b]	8.9E-04	2.00	4.5E-04 [b]	6.5E-05	4.30	1.5E-05 [b]	8.1E-04	9.00	9.0E-05 [b]	1.1E-03	40.0	2.7E-05 [b]	6.5E-05	40.0	1.6E-06 [b]	--
Hexane	110-54-3	8.6E-06	[6]	--	1.4E-05	[7]	--	1.0E-06	[8]	--	1.3E-05	700	1.8E-08 [b]	1.7E-05	3,100	5.4E-09 [b]	1.0E-06	3,100	3.3E-10 [b]	--
1,3-Butadiene	106-99-0	6.9E-05	0.033	2.1E-03 [b]	1.1E-04	0.40	2.8E-04 [b]	8.2E-06	0.86	9.6E-06 [b]	1.0E-04	2.00	5.1E-05 [b]	1.3E-04	8.80	1.5E-05 [b]	8.2E-06	8.80	9.4E-07 [b]	--
Propylene	115-07-1	1.5E-04	[6]	--	2.4E-04	[7]	--	1.8E-05	[8]	--	2.2E-04	3,000	7.3E-08 [b]	2.9E-04	13,000	2.2E-08 [b]	1.8E-05	13,000	1.4E-09 [b]	--
Toluene	108-88-3	3.4E-05	[6]	--	5.4E-05	[7]	--	4.0E-06	[8]	--	4.9E-05	5,000	9.9E-09 [b]	6.5E-05	22,000	3.0E-09 [b]	4.0E-06	22,000	1.8E-10 [b]	--
Xylene (mixture)	1330-20-7	1.4E-05	[6]	--	2.2E-05	[7]	--	1.6E-06	[8]	--	2.0E-05	220	9.0E-08 [b]	2.6E-05	970	2.7E-08 [b]	1.6E-06	970	1.7E-09 [b]	--
Hydrochloric acid	7647-01-0	5.9E-05	[6]	--	9.6E-05	[7]	--	7.1E-06	[8]	--	8.7E-05	20.0	4.4E-06 [b]	1.2E-04	88.0	1.3E-06 [b]	7.1E-06	88.0	8.0E-08 [b]	--
DPM	200	2.6E-03	0.10	0.026 [b]	4.2E-03	1.20	3.5E-03 [b]	3.1E-04	2.60	1.2E-04 [b]	3.8E-03	5.00	7.7E-04 [b]	5.1E-03	22.0	2.3E-04 [b]	3.1E-04	22.0	1.4E-05 [b]	--
PAHs (excluding Naphthalene)	401	1.2E-05	4.3E-05	0.27 [b]	1.9E-05	3.0E-03	6.2E-03 [b]	1.4E-06	1.6E-03	8.6E-04 [b]	1.7E-05	[9]	--	2.2E-05	[10]	--	1.4E-06	[11]	--	--
Benzo[a]pyrene	50-32-8	1.1E-08	4.3E-05	2.6E-04 [b]	1.8E-08	3.0E-03	6.1E-06 [b]	1.3E-09	1.6E-03	8.3E-07 [b]	1.6E-08	2.0E-03	8.2E-06 [b]	2.2E-08	8.8E-03	2.5E-06 [b]	1.3E-09	8.8E-03	1.5E-07 [b]	--
Naphthalene	91-20-3	6.3E-06	0.029	2.2E-04 [b]	1.0E-05	0.35	2.9E-05 [b]	7.5E-07	0.76	9.8E-07 [b]	9.2E-06	3.70	2.5E-06 [b]	1.2E-05	16.0	7.6E-07 [b]	7.5E-07	16.0	4.7E-08 [b]	--
EGEN01																				
Cumulative TEU Risk		--	--	**0.16**	--	--	**9.2E-03**	--	--	**4.5E-04**	--	--	**3.2E-03**	--	--	**6.1E-04**	--	--	**2.9E-05**	--
Dispersion Factor (ug/m³/[g/s])		**6.03**			**9.62**			**0.55**			**8.55**			**11.8**			**0.55**			--
Antimony and compounds	7440-36-0	4.1E-08	[6]	--	6.6E-08	[7]	--	3.8E-09	[8]	--	5.8E-08	0.30	1.9E-07 [b]	8.0E-08	1.30	6.2E-08 [b]	3.8E-09	1.30	2.9E-09 [b]	--
Arsenic and compounds	7440-38-2	2.1E-07	2.4E-05	8.6E-03 [b]	3.3E-07	6.2E-04	5.3E-04 [b]	1.9E-08	1.3E-03	1.5E-05 [b]	2.9E-07	1.7E-04	1.7E-03 [b]	4.0E-07	2.4E-03	1.7E-04 [b]	1.9E-08	2.4E-03	7.9E-06 [b]	--
Barium and compounds	7440-39-3	4.8E-08	[6]	--	7.7E-08	[7]	--	4.4E-09	[8]	--	6.9E-08	[9]	--	9.4E-08	[10]	--	4.4E-09	[11]	--	--
Beryllium and compounds	7440-41-7	6.2E-10	4.2E-04	1.5E-06 [b]	9.8E-10	5.0E-03	2.0E-07 [b]	5.7E-11	0.011	5.1E-09 [b]	8.7E-10	7.0E-03	1.2E-07 [b]	1.2E-09	0.031	3.9E-08 [b]	5.7E-11	0.031	1.8E-09 [b]	--
Cadmium and compounds	7440-43-9	1.9E-07	5.6E-04	3.5E-04 [b]	3.1E-07	6.7E-03	4.6E-05 [b]	1.8E-08	0.014	1.3E-06 [b]	2.7E-07	5.0E-03	5.5E-05 [b]	3.8E-07	0.037	1.0E-05 [b]	1.8E-08	0.037	4.8E-07 [b]	--
Chromium VI	18540-29-9	1.3E-08	3.1E-05	4.2E-04 [b]	2.1E-08	1.0E-03	2.1E-05 [b]	1.2E-09	5.2E-04	2.3E-06 [b]	1.8E-08	0.083	2.2E-07 [b]	2.5E-08	0.88	2.9E-08 [b]	1.2E-09	0.88	1.3E-09 [b]	--
Cobalt and compounds	7440-48-4	2.0E-09	[6]	--	3.2E-09	[7]	--	1.9E-10	[8]	--	2.9E-09	0.10	2.9E-08 [b]	4.0E-09	0.44	9.0E-09 [b]	1.9E-10	0.44	4.2E-10 [b]	--
Copper and compounds	7440-50-8	5.3E-07	[6]	--	8.5E-07	[7]	--	4.9E-08	[8]	--	7.5E-07	[9]	--	1.0E-06	[10]	--	4.9E-08	[11]	--	--
Lead and compounds	7439-92-1	1.1E-06	[6]	--	1.7E-06	[7]	--	9.8E-08	[8]	--	1.5E-06	0.15	1.0E-05 [b]	2.1E-06	0.66	3.2E-06 [b]	9.8E-08	0.66	1.5E-07 [b]	--
Phosphorus and compounds	504	1.1E-06	[6]	--	1.7E-06	[7]	--	1.0E-07	[8]	--	1.5E-06	[9]	--	2.1E-06	[10]	--	1.0E-07	[11]	--	--
Manganese and compounds	7439-96-5	4.0E-07	[6]	--	6.4E-07	[7]	--	3.7E-08	[8]	--	5.7E-07	0.090	6.3E-06 [b]	7.8E-07	0.40	2.0E-06 [b]	3.7E-08	0.40	9.2E-08 [b]	--
Mercury and compounds	7439-97-6	2.6E-07	[6]	--	4.1E-07	[7]	--	2.4E-08	[8]	--	3.7E-07	0.077	4.8E-06 [b]	5.0E-07	0.63	8.0E-07 [b]	2.4E-08	0.63	3.8E-08 [b]	--
Nickel and compounds	365	5.0E-07	3.8E-03	1.3E-04 [b]	8.0E-07	0.046	1.7E-05 [b]	4.6E-08	0.10	4.6E-07 [b]	7.1E-07	0.014	5.1E-05 [b]	9.8E-07	0.062	1.6E-05 [b]	4.6E-08	0.062	7.5E-07 [b]	--
Selenium and compounds	7782-49-2	2.8E-07	[6]	--	4.5E-07	[7]	--	2.6E-08	[8]	--	4.0E-07	[9]	--	5.6E-07	[10]	--	2.6E-08	[11]	--	--
Silver and compounds	7440-22-4	6.2E-09	[6]	--	9.9E-09	[7]	--	5.7E-10	[8]	--	8.8E-09	[9]	--	1.2E-08	[10]	--	5.7E-10	[11]	--	--
Thallium and compounds	7440-28-0	3.1E-08	[6]	--	5.0E-08	[7]	--	2.8E-09	[8]	--	4.4E-08	[9]	--	6.1E-08	[10]	--	2.8E-09	[11]	--	--
Zinc and compounds	7440-66-6	6.8E-07	[6]	--	1.1E-06	[7]	--	6.2E-08	[8]	--	9.6E-07	[9]	--	1.3E-06	[10]	--	6.2E-08	[11]	--	--
Acetaldehyde	75-07-0	1.0E-04	0.45	2.2E-04 [b]	1.6E-04	5.50	2.9E-05 [b]	9.3E-06	12.0	7.7E-07 [b]	1.4E-04	140	1.0E-06 [b]	2.0E-04	620	3.2E-07 [b]	9.3E-06	620	1.5E-08 [b]	--
Acrolein	107-02-8	4.4E-06	[6]	--	7.0E-06	[7]	--	4.0E-07	[8]	--	6.2E-06	0.35	1.8E-05 [b]	8.6E-06	1.50	5.7E-06 [b]	4.0E-07	1.50	2.7E-07 [b]	--
Ammonia	7664-41-7	3.7E-04	[6]	--	6.0E-04	[7]	--	3.4E-05	[8]	--	5.3E-04	500	1.1E-06 [b]	7.3E-04	2,200	3.3E-07 [b]	3.4E-05	2,200	1.6E-08 [b]	--
Benzene	71-43-2	2.4E-05	0.13	1.9E-04 [b]	3.8E-05	1.50	2.6E-05 [b]	2.2E-06	3.30	6.7E-07 [b]	3.4E-05	3.00	1.1E-05 [b]	4.7E-05	13.0	3.6E-06 [b]	2.2E-06	13.0	1.7E-07 [b]	--
Chlorobenzene	108-90-7	2.6E-08	[6]	--	4.1E-08	[7]	--	2.4E-09	[8]	--	3.7E-08	50.0	7.3E-10 [b]	5.0E-08	220	2.3E-10 [b]	2.4E-09	220	1.1E-11 [b]	--
Ethyl benzene	100-41-4	1.4E-06	0.40	3.5E-06 [b]	2.2E-06	4.80	4.7E-07 [b]	1.3E-07	10.0	1.3E-08 [b]	2.0E-06	260	7.7E-09 [b]	2.8E-06	1,100	2.5E-09 [b]	1.3E-07	1,100	1.2E-10 [b]	--
Formaldehyde	50-00-0	2.2E-04	0.17	1.3E-03 [b]	3.6E-04	2.00	1.8E-04 [b]	2.0E-05	4.30	4.8E-06 [b]	3.2E-04	9.00	3.5E-05 [b]	4.4E-04	40.0	1.1E-05 [b]	2.0E-05	40.0	5.1E-07 [b]	--
Hexane	110-54-3	3.5E-06	[6]	--	5.5E-06	[7]	--	3.2E-07	[8]	--	4.9E-06	700	7.0E-09 [b]	6.8E-06	3,100	2.2E-09 [b]	3.2E-07	3,100	1.0E-10 [b]	--
1,3-Butadiene	106-99-0	2.8E-05	0.033	8.5E-04 [b]	4.5E-05	0.40	1.1E-04 [b]	2.6E-06	0.86	3.0E-06 [b]	4.0E-05	2.00	2.0E-05 [b]	5.5E-05	8.80	6.2E-06 [b]	2.6E-06	8.80	2.9E-07 [b]	--
Propylene	115-07-1	6.1E-05	[6]	--	9.7E-05	[7]	--	5.6E-06	[8]	--	8.6E-05	3,000	2.9E-08 [b]	1.2E-04	13,000	9.1E-09 [b]	5.6E-06	13,000	4.3E-10 [b]	--
Toluene	108-88-3	1.4E-05	[6]	--	2.2E-05	[7]	--	1.2E-06	[8]	--	1.9E-05	5,000	3.9E-09 [b]	2.7E-05	22,000	1.2E-09 [b]	1.2E-06	22,000	5.7E-11 [b]	--
Xylene (mixture)	1330-20-7	5.5E-06	[6]	--	8.7E-06	[7]	--	5.0E-07	[8]	--	7.8E-06	220	3.5E-08 [b]	1.1E-05	970	1.1E-08 [b]	5.0E-07	970	5.2E-10 [b]	--
Hydrochloric acid	7647-01-0	2.4E-05	[6]	--	3.8E-05	[7]	--	2.2E-06	[8]	--	3.4E-05	20.0	1.7E-06 [b]	4.7E-05	88.0	5.3E-07 [b]	2.2E-06	88.0	2.5E-08 [b]	--
DPM	200	4.3E-03	0.10	0.043 [b]	6.9E-03	1.20	5.8E-03	4.0E-04	2.60	1.5E-04	6.1E-03	5.00	1.2E-03 [b]	8.5E-03	22.0	3.8E-04 [b]	4.0E-04	22.0	1.8E-05 [b]	--
PAHs (excluding Naphthalene)	401	4.7E-06	4.3E-05	0.11 [b]	7.5E-06	3.0E-03	2.5E-03	4.3E-07	1.6E-03	2.7E-04	6.6E-06	[9]	--	9.1E-06	[10]	--	4.3E-07	[11]	--	--
Benzo[a]pyrene	50-32-8	4.6E-09	4.3E-05	1.1E-04 [b]	7.4E-09	3.0E-03	2.5E-06 [b]	4.2E-10	1.6E-03	2.6E-07 [b]	6.5E-09	2.0E-03	3.3E-06 [b]	9.0E-09	8.8E-03	1.0E-06 [b]	4.2E-10	8.8E-03	4.8E-08 [b]	--
Naphthalene	91-20-3	2.5E-06	0.029	8.8E-05 [b]	4.1E-06	0.35	1.2E-05 [b]	2.3E-07	0.76	3.1E-07 [b]	3.6E-06	3.70	9.8E-07 [b]	5.0E-06	16.0	3.1E-07 [b]	2.3E-07	16.0	1.5E-08 [b]	--
WHITE																				
Cumulative TEU Risk		--	--	**0.019**	--	--	**3.3E-03**	--	--	**4.7E-05**	--	--	**2.9E-04**	--	--	**1.7E-04**	--	--	**4.1E-06**	--
Dispersion Factor (ug/m³/[g/s])		**10.3**			**20.9**			**0.64**			**10.1**			**26.2**			**0.64**			--
Acetaldehyde	75-07-0	2.4E-03	0.45	5.3E-03 [b]	4.8E-03	5.50	8.8E-04 [b]	1.5E-04	12.0	1.2E-05 [b]	2.3E-03	140	1.7E-05 [b]	6.1E-03	620	9.8E-06 [b]	1.5E-04	620	2.4E-07 [b]	--
Acetone	67-64-1	9.0E-04	[6]	--	1.8E-03	[7]	--	5.6E-05	[8]	--	8.9E-04	31,000	2.9E-08 [b]	2.3E-03	140,000	1.6E-08 [b]	5.6E-05	140,000	4.0E-10 [b]	--
Acrolein	107-02-8	1.7E-23	[6]	--	3.5E-23	[7]	--	1.1E-24	[8]	--	1.7E-23	0.35	4.9E-23 [b]	4.4E-23	1.50	3.0E-23 [b]	1.1E-24	1.50	7.2E-25 [b]	--
Epichlorohydrin	106-89-8	1.1E-06	0.043	2.6E-05 [b]	2.3E-06	0.52	4.4E-06 [b]	7.0E-08	1.10	6.3E-08 [b]	1.1E-06	3.00	3.7E-07 [b]	2.9E-06	13.0	2.2E-07 [b]	7.0E-08	13.0	5.4E-09 [b]	--
Formaldehyde	50-00-0	2.4E-03	0.17	0.014 [b]	4.8E-03	2.00	2.4E-03 [b]	1.5E-04	4.30	3.4E-05 [b]	2.3E-03	9.00	2.6E-04 [b]	6.1E-03	40.0	1.5E-04 [b]	1.5E-04	40.0	3.7E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.3E-04	[6]	--	4.8E-04	[7]	--	1.5E-05	[8]	--	2.3E-04	3,000	7.7E-08 [b]	6.0E-04	13,000	4.6E-08 [b]	1.5E-05	13,000	1.1E-09 [b]	--
Phenol	108-95-2	3.7E-05	[6]	--	7.5E-05	[7]	--	2.3E-06	[8]	--	3.6E-05	200	1.8E-07 [b]	9.4E-05	880	1.1E-07 [b]	2.3E-06	880	2.6E-09 [b]	--
Propionaldehyde	123-38-6	9.9E-05	[6]	--	2.0E-04	[7]	--	6.2E-06	[8]	--	9.7E-05	8.00	1.2E-05 [b]	2.5E-04	35.0	7.2E-06 [b]	6.2E-06	35.0	1.8E-07 [b]	--
MACH																				
Cumulative TEU Risk		--	--	**0.18**	--	--	**0.026**	--	--	**3.1E-04**	--	--	**0.016**	--	--	**9.7E-03**	--	--	**2.0E-04**	--
Dispersion Factor (ug/m³/[g/s])		**14.3**			**25.0**			**0.64**			**11.5**			**30.8**			**0.64**			--
Acetaldehyde	75-07-0	0.051	0.45	0.11 [b]	0.089	5.50	0.016 [b]	2.3E-03	12.0	1.9E-04 [b]	0.041	140	2.9E-04 [b]	0.11	620	1.8E-04 [b]	2.3E-03	620	3.7E-06 [b]	--
Acetone	67-64-1	0.017	[6]	--	0.030	[7]	--	7.8E-04	[8]	--	0.014	31,000	4.5E-07 [b]	0.037	140,000	2.7E-07 [b]	7.8E-04	140,000	5.6E-09 [b]	--
Acrolein	107-02-8	6.1E-03	[6]	--	0.011	[7]	--	2.7E-04	[8]	--	4.9E-03	0.35	0.014 [b]	0.013	1.50	8.7E-03 [b]	2.7E-04	1.50	1.8E-04 [b]	--
Formaldehyde	50-00-0	0.012	0.17	0.069 [b]	0.020	2.00	0.010 [b]	5.2E-04	4.30	1.2E-04 [b]	9.4E-03	9.00	1.0E-03 [b]	0.025	40.0	6.3E-04 [b]	5.2E-04	40.0	1.3E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	0.014	[6]	--	0.024	[7]	--	6.3E-04	[8]	--	0.011	3,000	3.7E-06 [b]	0.030	13,000	2.3E-06 [b]	6.3E-04	13,000	4.8E-08 [b]	--
Phenol	108-95-2	6.6E-05	[6]	--	1.2E-04	[7]	--	3.0E-06	[8]	--	5.3E-05	200	2.7E-07 [b]	1.4E-04	880	1.6E-07 [b]	3.0E-06	880	3.4E-09 [b]	--
Propionaldehyde	123-38-6	1.8E-03	[6]	--	3.2E-03	[7]	--	8.2E-05	[8]	--	1.5E-03	8.00	1.8E-04 [b]	3.9E-03	35.0	1.1E-04 [b]	8.2E-05	35.0	2.4E-06 [b]	--
RF12_RV																				
Cumulative TEU Risk		--	--	**0.024**	--	--	**3.7E-03**	--	--	**6.4E-05**	--	--	**2.3E-04**	--	--	**1.2E-04**	--	--	**3.7E-06**	--
Dispersion Factor (ug/m³/[g/s])		**9.30**			**17.1**			**0.65**			**9.11**			**21.0**			**0.65**			--
Acetaldehyde	75-07-0	6.2E-03	0.45	0.014 [b]	0.011	5.50	2.1E-03 [b]	4.3E-04	12.0	3.6E-05 [b]	6.1E-03	140	4.3E-05 [b]	0.014	620	2.3E-05 [b]	4.3E-04	620	7.0E-07 [b]	--
Acetone	67-64-1	0.020	[6]	--	0.037	[7]	--	1.4E-03	[8]	--	0.020	31,000	6.4E-07 [b]	0.046	140,000	3.3E-07 [b]	1.4E-03	140,000	1.0E-08 [b]	--
Formaldehyde	50-00-0	1.7E-03	0.17	0.010 [b]	3.2E-03	2.00	1.6E-03 [b]	1.2E-04	4.30	2.8E-05 [b]	1.7E-03	9.00	1.9E-04 [b]	3.9E-03	40.0	9.7E-05 [b]	1.2E-04	40.0	3.0E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.2E-03	[6]	--	2.3E-03	[7]	--	8.7E-05	[8]	--	1.2E-03	3,000	4.1E-07 [b]	2.8E-03	13,000	2.2E-07 [b]	8.7E-05	13,000	6.7E-09 [b]	--
Methanol	67-56-1	6.1E-03	[6]	--	0.011	[7]	--	4.2E-04	[8]	--	5.9E-03	4,000	1.5E-06 [b]	0.014	18,000	7.6E-07 [b]	4.2E-04	18,000	2.3E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	1.2E-03	[6]	--	2.2E-03	[7]	--	8.4E-05	[8]	--	1.2E-03	5,000	2.4E-07 [b]	2.7E-03	22,000	1.2E-07 [b]	8.4E-05	22,000	3.8E-09 [b]	--
Styrene	100-42-5	8.8E-04	[6]	--	1.6E-03	[7]	--	6.1E-05	[8]	--	8.6E-04	1,000	8.6E-07 [b]	2.0E-03	4,400	4.5E-07 [b]	6.1E-05	4,400	1.4E-08 [b]	--
HPVUV_FUG																				
Cumulative TEU Risk		--	--	**0.019**	--	--	**3.0E-03**	--	--	**5.4E-05**	--	--	**2.4E-04**	--	--	**1.6E-04**	--	--	**4.8E-06**	--
Dispersion Factor (ug/m³/[g/s])		**8.73**			**16.7**			**0.64**			**7.23**			**21.0**			**0.64**			--
Acetaldehyde	75-07-0	2.5E-03	0.45	5.6E-03 [b]	4.8E-03	5.50	8.8E-04 [b]	1.9E-04	12.0	1.6E-05 [b]	2.1E-03	140	1.5E-05 [b]	6.1E-03	620	9.8E-06 [b]	1.9E-04	620	3.0E-07 [b]	--
Acetone	67-64-1	8.7E-04	[6]	--	1.7E-03	[7]	--	6.4E-05	[8]	--	7.2E-04	31,000	2.3E-08 [b]	2.1E-03	140,000	1.5E-08 [b]	6.4E-05	140,000	4.6E-10 [b]	--
Formaldehyde	50-00-0	2.2E-03	0.17	0.013 [b]	4.2E-03	2.00	2.1E-03 [b]	1.6E-04	4.30	3.8E-05 [b]	1.8E-03	9.00	2.0E-04 [b]	5.3E-03	40.0	1.3E-04 [b]	1.6E-04	40.0	4.1E-06 [b]	--
Methanol	67-56-1	0.038	[6]	--	0.073	[7]	--	2.8E-03	[8]	--	0.031	4,000	7.9E-06 [b]	0.091	18,000	5.1E-06 [b]	2.8E-03	18,000	1.6E-07 [b]	--
Phenol	108-95-2	1.6E-03	[6]	--	3.0E-03	[7]	--	1.2E-04	[8]	--	1.3E-03	200	6.6E-06 [b]	3.8E-03	880	4.3E-06 [b]	1.2E-04	880	1.3E-07 [b]	--
Toluene	108-88-3	1.7E-04	[6]	--	3.3E-04	[7]	--	1.3E-05	[8]	--	1.4E-04	5,000	2.9E-08 [b]	4.2E-04	22,000	1.9E-08 [b]	1.3E-05	22,000	5.8E-10 [b]	--
Xylene (mixture)	1330-20-7	8.4E-04	[6]	--	1.6E-03	[7]	--	6.2E-05	[8]	--	6.9E-04	220	3.2E-06 [b]	2.0E-03	970	2.1E-06 [b]	6.2E-05	970	6.4E-08 [b]	--
o-Xylene	95-47-6	5.7E-04	[6]	--	1.1E-03	[7]	--	4.2E-05	[8]	--	4.7E-04	200	2.4E-06 [b]	1.4E-03	880	1.6E-06 [b]	4.2E-05	880	4.8E-08 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Excess Risk Per Million	Calculated Conc. [a] (ug/m^3)	RBC [2] (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. [a] (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index [3]
FORM_FUG																				
Cumulative TEU Risk		**--**	**--**	**0.027**	**--**	**--**	**4.2E-03**	**--**	**--**	**4.2E-05**	**--**	**--**	**1.3E-03**	**--**	**--**	**9.3E-04**	**--**	**--**	**1.6E-05**	**--**
Dispersion Factor (ug/m^3/[g/s])		**15.8**			**29.1**			**0.64**			**12.0**			**36.3**			**0.64**			**--**
Acetaldehyde	75-07-0	5.9E-03	0.45	0.013 [b]	0.011	5.50	2.0E-03 [b]	2.4E-04	12.0	2.0E-05 [b]	4.5E-03	140	3.2E-05 [b]	0.014	620	2.2E-05 [b]	2.4E-04	620	3.9E-07 [b]	--
Acetone	67-64-1	2.6E-03	[6]	--	4.8E-03	[7]	--	1.1E-04	[8]	--	2.0E-03	31,000	6.4E-08 [b]	6.0E-03	140,000	4.3E-08 [b]	1.1E-04	140,000	7.6E-10 [b]	--
Acrolein	107-02-8	5.0E-04	[6]	--	9.3E-04	[7]	--	2.0E-05	[8]	--	3.8E-04	0.35	1.1E-03 [b]	1.2E-03	1.50	7.7E-04 [b]	2.0E-05	1.50	1.4E-05 [b]	--
Formaldehyde	50-00-0	2.3E-03	0.17	0.014 [b]	4.3E-03	2.00	2.2E-03 [b]	9.6E-05	4.30	2.2E-05 [b]	1.8E-03	9.00	2.0E-04 [b]	5.4E-03	40.0	1.4E-04 [b]	9.6E-05	40.0	2.4E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.9E-04	[6]	--	3.5E-04	[7]	--	7.6E-06	[8]	--	1.4E-04	3,000	4.7E-08 [b]	4.3E-04	13,000	3.3E-08 [b]	7.6E-06	13,000	5.9E-10 [b]	--
Methanol	67-56-1	0.013	[6]	--	0.025	[7]	--	5.5E-04	[8]	--	0.010	4,000	2.6E-06 [b]	0.031	18,000	1.7E-06 [b]	5.5E-04	18,000	3.0E-08 [b]	--
2-Butanone (Methyl ethyl ketone)	78-93-3	3.7E-04	[6]	--	6.8E-04	[7]	--	1.5E-05	[8]	--	2.8E-04	5,000	5.6E-08 [b]	8.5E-04	22,000	3.8E-08 [b]	1.5E-05	22,000	6.8E-10 [b]	--
Toluene	108-88-3	3.7E-04	[6]	--	6.8E-04	[7]	--	1.5E-05	[8]	--	2.8E-04	5,000	5.6E-08 [b]	8.5E-04	22,000	3.9E-08 [b]	1.5E-05	22,000	6.8E-10 [b]	--
GAS																				
Cumulative TEU Risk		**--**	**--**	**0.018**	**--**	**--**	**6.2E-03**	**--**	**--**	**1.1E-05**	**--**	**--**	**1.0E-04**	**--**	**--**	**1.3E-03**	**--**	**--**	**2.7E-06**	**--**
Dispersion Factor (ug/m^3/[g/s])		**43.3**			**175**			**0.66**			**5.85**			**329**			**0.66**			**--**
Benzene	71-43-2	2.3E-03	0.13	0.017 [b]	9.1E-03	1.50	6.1E-03 [b]	3.4E-05	3.30	1.0E-05 [b]	3.0E-04	3.00	1.0E-04 [b]	0.017	13.0	1.3E-03 [b]	3.4E-05	13.0	2.7E-06 [b]	--
Ethyl benzene	100-41-4	9.9E-05	0.40	2.5E-04 [b]	4.0E-04	4.80	8.4E-05 [b]	1.5E-06	10.0	1.5E-07 [b]	1.3E-05	260	5.2E-08 [b]	7.6E-04	1,100	6.9E-07 [b]	1.5E-06	1,100	1.4E-09 [b]	--
Isopropylbenzene (Cumene)	98-82-8	5.2E-06	[6]	--	2.1E-05	[7]	--	8.0E-08	[8]	--	7.1E-07	400	1.8E-09 [b]	4.0E-05	1,800	2.2E-08 [b]	8.0E-08	1,800	4.4E-11 [b]	--
1,3,5-Trimethylbenzene	108-67-8	3.1E-05	[6]	--	1.2E-04	[7]	--	4.7E-07	[8]	--	4.2E-06	60.0	6.9E-08 [b]	2.3E-04	260	9.0E-07 [b]	4.7E-07	260	1.8E-09 [b]	--
1,2,3-Trimethylbenzene	526-73-8	1.8E-05	[6]	--	7.3E-05	[7]	--	2.8E-07	[8]	--	2.4E-06	60.0	4.1E-08 [b]	1.4E-04	260	5.3E-07 [b]	2.8E-07	260	1.1E-09 [b]	--
Cyclohexane	110-82-7	3.7E-03	[6]	--	0.015	[7]	--	5.7E-05	[8]	--	5.0E-04	6,000	8.4E-08 [b]	0.028	26,000	1.1E-06 [b]	5.7E-05	26,000	2.2E-09 [b]	--
1,2,4-Trimethyl benzene	95-63-6	6.7E-05	[6]	--	2.7E-04	[7]	--	1.0E-06	[8]	--	9.1E-06	60.0	1.5E-07 [b]	5.1E-04	260	2.0E-06 [b]	1.0E-06	260	4.0E-09 [b]	--
Styrene	100-42-5	2.9E-07	[6]	--	1.2E-06	[7]	--	4.4E-09	[8]	--	3.9E-08	1,000	3.9E-11 [b]	2.2E-06	4,400	4.9E-10 [b]	4.4E-09	4,400	9.9E-13 [b]	--
Toluene	108-88-3	1.6E-03	[6]	--	6.4E-03	[7]	--	2.4E-05	[8]	--	2.2E-04	5,000	4.3E-08 [b]	0.012	22,000	5.5E-07 [b]	2.4E-05	22,000	1.1E-09 [b]	--
p-Xylene	106-42-3	2.8E-04	[6]	--	1.1E-03	[7]	--	4.2E-06	[8]	--	3.7E-05	200	1.9E-07 [b]	2.1E-03	880	2.4E-06 [b]	4.2E-06	880	4.8E-09 [b]	--
o-Xylene	95-47-6	1.0E-04	[6]	--	4.1E-04	[7]	--	1.6E-06	[8]	--	1.4E-05	200	6.9E-08 [b]	7.8E-04	880	8.8E-07 [b]	1.6E-06	880	1.8E-09 [b]	--
Naphthalene	91-20-3	1.6E-06	0.029	5.7E-05 [b]	6.6E-06	0.35	1.9E-05 [b]	2.5E-08	0.76	3.3E-08 [b]	2.2E-07	3.70	6.0E-08 [b]	1.3E-05	16.0	7.8E-07 [b]	2.5E-08	16.0	1.6E-09 [b]	--
RESIN1																				
Cumulative TEU Risk		**--**	**--**	**0.026**	**--**	**--**	**3.9E-03**	**--**	**--**	**7.6E-05**	**--**	**--**	**5.1E-04**	**--**	**--**	**2.4E-04**	**--**	**--**	**8.2E-06**	**--**
Dispersion Factor (ug/m^3/[g/s])		**8.61**			**15.4**			**0.65**			**9.12**			**18.8**			**0.65**			**--**
Formaldehyde	50-00-0	4.4E-03	0.17	0.026 [b]	7.8E-03	2.00	3.9E-03 [b]	3.3E-04	4.30	7.6E-05 [b]	4.6E-03	9.00	5.1E-04 [b]	9.5E-03	40.0	2.4E-04 [b]	3.3E-04	40.0	8.2E-06 [b]	--
Methanol	67-56-1	4.3E-04	[6]	--	7.8E-04	[7]	--	3.3E-05	[8]	--	4.6E-04	4,000	1.1E-07 [b]	9.5E-04	18,000	5.3E-08 [b]	3.3E-05	18,000	1.8E-09 [b]	--
Phenol	108-95-2	3.0E-07	[6]	--	5.3E-07	[7]	--	2.2E-08	[8]	--	3.2E-07	200	1.6E-09 [b]	6.5E-07	880	7.4E-10 [b]	2.2E-08	880	2.5E-11 [b]	--
RESIN2																				
Cumulative TEU Risk		**--**	**--**	**0.028**	**--**	**--**	**4.2E-03**	**--**	**--**	**8.2E-05**	**--**	**--**	**5.5E-04**	**--**	**--**	**2.5E-04**	**--**	**--**	**8.8E-06**	**--**
Dispersion Factor (ug/m^3/[g/s])		**8.66**			**15.5**			**0.65**			**9.05**			**18.8**			**0.65**			**--**
Formaldehyde	50-00-0	4.7E-03	0.17	0.028 [b]	8.4E-03	2.00	4.2E-03 [b]	3.5E-04	4.30	8.2E-05 [b]	4.9E-03	9.00	5.5E-04 [b]	0.010	40.0	2.5E-04 [b]	3.5E-04	40.0	8.8E-06 [b]	--
Methanol	67-56-1	4.7E-04	[6]	--	8.3E-04	[7]	--	3.5E-05	[8]	--	4.9E-04	4,000	1.2E-07 [b]	1.0E-03	18,000	5.6E-08 [b]	3.5E-05	18,000	1.9E-09 [b]	--
Phenol	108-95-2	3.2E-07	[6]	--	5.7E-07	[7]	--	2.4E-08	[8]	--	3.4E-07	200	1.7E-09 [b]	7.0E-07	880	7.9E-10 [b]	2.4E-08	880	2.7E-11 [b]	--
RESIN3																				
Cumulative TEU Risk		**--**	**--**	**0.028**	**--**	**--**	**4.2E-03**	**--**	**--**	**8.2E-05**	**--**	**--**	**5.4E-04**	**--**	**--**	**2.5E-04**	**--**	**--**	**8.8E-06**	**--**
Dispersion Factor (ug/m^3/[g/s])		**8.71**			**15.5**			**0.65**			**8.98**			**18.7**			**0.65**			**--**
Formaldehyde	50-00-0	4.7E-03	0.17	0.028 [b]	8.4E-03	2.00	4.2E-03 [b]	3.5E-04	4.30	8.2E-05 [b]	4.9E-03	9.00	5.4E-04 [b]	0.010	40.0	2.5E-04 [b]	3.5E-04	40.0	8.8E-06 [b]	--
Methanol	67-56-1	4.7E-04	[6]	--	8.4E-04	[7]	--	3.5E-05	[8]	--	4.9E-04	4,000	1.2E-07 [b]	1.0E-03	18,000	5.6E-08 [b]	3.5E-05	18,000	1.9E-09 [b]	--
Phenol	108-95-2	3.2E-07	[6]	--	5.7E-07	[7]	--	2.4E-08	[8]	--	3.3E-07	200	1.7E-09 [b]	6.9E-07	880	7.9E-10 [b]	2.4E-08	880	2.7E-11 [b]	--
PAINT																				
Cumulative TEU Risk		**--**	**--**	**0**	**--**	**--**	**0**	**--**	**--**	**0**	**--**	**--**	**1.3E-04**	**--**	**--**	**3.0E-04**	**--**	**--**	**2.6E-06**	**--**
Dispersion Factor (ug/m^3/[g/s])		**25.2**			**52.5**			**0.66**			**7.57**			**74.3**			**0.66**			**--**
Ethylene glycol monobutyl ether	111-76-2	0.036	[6]	--	0.075	[7]	--	9.4E-04	[8]	--	0.011	82.0	1.3E-04 [b]	0.11	360	3.0E-04 [b]	9.4E-04	360	2.6E-06 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Excess Risk Per Million	Calculated Conc. [a] (ug/m³)	RBC [2] (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Calculated Conc. [a] (ug/m³)	RBC (ug/m³)	Hazard Index	Hazard Index [3]
LSP																				
Cumulative TEU Risk		--	--	**0**	--	--	**0**	--	--	**0**	--	--	**0**	--	--	**0**	--	--	**0**	--
Dispersion Factor (ug/m³/[g/s])		**34.0**			**89.7**			**0.64**			**12.3**			**101**			**0.64**			--
Dipropylene glycol monomethyl ether	34590-94-8	1.21	[6]	--	3.19	[7]	--	0.023	[8]	--	0.44	[9]	-- [b]	3.59	[10]	-- [b]	0.023	[11]	-- [b]	--
WELD																				
Cumulative TEU Risk		--	--	**0.016**	--	--	**9.0E-04**	--	--	**4.1E-05**	--	--	**5.1E-04**	--	--	**4.6E-04**	--	--	**9.7E-06**	--
Dispersion Factor (ug/m³/[g/s])		**15.2**			**25.9**			**0.67**			**7.71**			**31.3**			**0.67**			--
Chromium VI	18540-29-9	4.7E-07	3.1E-05	0.015 [b]	8.0E-07	1.0E-03	8.0E-04 [b]	2.0E-08	5.2E-04	3.9E-05 [b]	2.4E-07	0.083	2.9E-06 [b]	9.6E-07	0.88	1.1E-06 [b]	2.0E-08	0.88	2.3E-08 [b]	--
Cobalt and compounds	7440-48-4	5.7E-08	[6]	--	9.7E-08	[7]	--	2.5E-09	[8]	--	2.9E-08	0.10	2.9E-07 [b]	1.2E-07	0.44	2.7E-07 [b]	2.5E-09	0.44	5.7E-09 [b]	--
Aluminum and compounds	7429-90-5	3.3E-04	[6]	--	5.6E-04	[7]	--	1.5E-05	[8]	--	1.7E-04	5.00	3.4E-05 [b]	6.8E-04	22.0	3.1E-05 [b]	1.5E-05	22.0	6.6E-07 [b]	--
Copper and compounds	7440-50-8	3.4E-07	[6]	--	5.8E-07	[7]	--	1.5E-08	[8]	--	1.7E-07	(9)	-- [b]	7.0E-07	(10)	-- [b]	1.5E-08	(11)	-- [b]	--
Manganese and compounds	7439-96-5	6.3E-05	[6]	--	1.1E-04	[7]	--	2.7E-06	[8]	--	3.2E-05	0.090	3.5E-04 [b]	1.3E-04	0.40	3.2E-04 [b]	2.7E-06	0.40	6.9E-06 [b]	--
Nickel and compounds	365	2.9E-06	3.8E-03	7.7E-04 [b]	5.0E-06	0.046	1.1E-04 [b]	1.3E-07	0.10	1.3E-06 [b]	1.5E-06	0.014	1.1E-04 [b]	6.0E-06	0.062	9.7E-05 [b]	1.3E-07	0.062	2.1E-06 [b]	--
Fluorides	239	5.2E-05	[6]	--	8.8E-05	[7]	--	2.3E-06	[8]	--	2.6E-05	2.30	1.1E-05 [b]	1.1E-04	20.0	5.4E-06 [b]	2.3E-06	20.0	1.1E-07 [b]	--
BPOT																				
Cumulative TEU Risk		--	--	**9.7E-05**	--	--	**1.6E-05**	--	--	**2.0E-07**	--	--	**4.9E-05**	--	--	**2.1E-05**	--	--	**4.7E-07**	--
Dispersion Factor (ug/m³/[g/s])		**11.4**			**23.1**			**0.61**			**14.3**			**27.1**			**0.61**			--
Antimony and compounds	7440-36-0	3.7E-06	[6]	--	7.5E-06	[7]	--	2.0E-07	[8]	--	4.6E-06	0.30	1.5E-05 [b]	8.8E-06	1.30	6.8E-06 [b]	2.0E-07	1.30	1.5E-07 [b]	--
Copper and compounds	7440-50-8	3.7E-06	[6]	--	7.5E-06	[7]	--	2.0E-07	[8]	--	4.6E-06	(9)	-- [b]	8.8E-06	(10)	-- [b]	2.0E-07	(11)	-- [b]	--
Nickel and compounds	365	3.7E-07	3.8E-03	9.7E-05 [b]	7.5E-07	0.046	1.6E-05 [b]	2.0E-08	0.10	2.0E-07 [b]	4.6E-07	0.014	3.3E-05 [b]	8.8E-07	0.062	1.4E-05 [b]	2.0E-08	0.062	3.2E-07 [b]	--
SCR_HYDRO																				
Cumulative TEU Risk		--	--	**3.9E-04**	--	--	**5.9E-05**	--	--	**9.5E-07**	--	--	**3.9E-03**	--	--	**1.6E-03**	--	--	**4.6E-05**	--
Dispersion Factor (ug/m³/[g/s])		**10.0**			**18.5**			**0.65**			**12.8**			**22.2**			**0.65**			--
Acetaldehyde	75-07-0	1.5E-04	0.45	3.4E-04 [b]	2.8E-04	5.50	5.2E-05 [b]	9.9E-06	12.0	8.3E-07 [b]	2.0E-04	140	1.4E-06 [b]	3.4E-04	620	5.5E-07 [b]	9.9E-06	620	1.6E-08 [b]	--
Acetone	67-64-1	3.9E-04	[6]	--	7.3E-04	[7]	--	2.6E-05	[8]	--	5.0E-04	31,000	1.6E-08 [b]	8.7E-04	140,000	6.2E-09 [b]	2.6E-05	140,000	1.8E-10 [b]	--
Acrolein	107-02-8	1.0E-03	[6]	--	1.9E-03	[7]	--	6.7E-05	[8]	--	1.3E-03	0.35	3.8E-03 [b]	2.3E-03	1.50	1.5E-03 [b]	6.7E-05	1.50	4.5E-05 [b]	--
Formaldehyde	50-00-0	7.7E-06	0.17	4.5E-05 [b]	1.4E-05	2.00	7.2E-06 [b]	5.0E-07	4.30	1.2E-07 [b]	9.9E-06	9.00	1.1E-06 [b]	1.7E-05	40.0	4.3E-07 [b]	5.0E-07	40.0	1.3E-08 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	3.5E-05	[6]	--	6.5E-05	[7]	--	2.3E-06	[8]	--	4.5E-05	3,000	1.5E-08 [b]	7.8E-05	13,000	6.0E-09 [b]	2.3E-06	13,000	1.8E-10 [b]	--
Phenol	108-95-2	2.2E-06	[6]	--	4.2E-06	[7]	--	1.5E-07	[8]	--	2.9E-06	200	1.4E-08 [b]	5.0E-06	880	5.6E-09 [b]	1.5E-07	880	1.7E-10 [b]	--
Propionaldehyde	123-38-6	4.5E-04	[6]	--	8.4E-04	[7]	--	2.9E-05	[8]	--	5.8E-04	8.00	7.3E-05 [b]	1.0E-03	35.0	2.9E-05 [b]	2.9E-05	35.0	8.4E-07 [b]	--
HYDRO																				
Cumulative TEU Risk		--	--	**0.041**	--	--	**5.6E-03**	--	--	**1.0E-04**	--	--	**3.0E-04**	--	--	**1.3E-04**	--	--	**4.4E-06**	--
Dispersion Factor (ug/m³/[g/s])		**9.99**			**16.5**			**0.67**			**10.3**			**20.2**			**0.67**			--
Acetaldehyde	75-07-0	0.016	0.45	0.036 [b]	0.027	5.50	4.8E-03 [b]	1.1E-03	12.0	9.0E-05 [b]	0.017	140	1.2E-04 [b]	0.033	620	5.2E-05 [b]	1.1E-03	620	1.7E-06 [b]	--
Acetone	67-64-1	1.9E-03	[6]	--	3.2E-03	[7]	--	1.3E-04	[8]	--	2.0E-03	31,000	6.4E-08 [b]	3.9E-03	140,000	2.8E-08 [b]	1.3E-04	140,000	9.2E-10 [b]	--
Acrolein	107-02-8	1.6E-22	[6]	--	2.7E-22	[7]	--	1.1E-23	[8]	--	1.7E-22	0.35	4.7E-22 [b]	3.3E-22	1.50	2.2E-22 [b]	1.1E-23	1.50	7.2E-24 [b]	--
Formaldehyde	50-00-0	8.7E-04	0.17	5.1E-03 [b]	1.4E-03	2.00	7.2E-04 [b]	5.9E-05	4.30	1.4E-05 [b]	9.0E-04	9.00	1.0E-04 [b]	1.8E-03	40.0	4.4E-05 [b]	5.9E-05	40.0	1.5E-06 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	7.3E-03	[6]	--	0.012	[7]	--	4.9E-04	[8]	--	7.5E-03	3,000	2.5E-06 [b]	0.015	13,000	1.1E-06 [b]	4.9E-04	13,000	3.8E-08 [b]	--
Phenol	108-95-2	2.3E-05	[6]	--	3.8E-05	[7]	--	1.5E-06	[8]	--	2.4E-05	200	1.2E-07 [b]	4.6E-05	880	5.3E-08 [b]	1.5E-06	880	1.7E-09 [b]	--
Propionaldehyde	123-38-6	5.9E-04	[6]	--	9.8E-04	[7]	--	4.0E-05	[8]	--	6.1E-04	8.00	7.6E-05 [b]	1.2E-03	35.0	3.4E-05 [b]	4.0E-05	35.0	1.1E-06 [b]	--
CLAR																				
Cumulative TEU Risk		--	--	**3.5E-05**	--	--	**5.2E-06**	--	--	**1.7E-07**	--	--	**9.1E-08**	--	--	**1.2E-07**	--	--	**8.3E-09**	--
Dispersion Factor (ug/m³/[g/s])		**6.04**			**10.9**			**0.77**			**1.89**			**11.1**			**0.77**			--
Acetaldehyde	75-07-0	1.2E-05	0.45	2.6E-05 [b]	2.1E-05	5.50	3.8E-06 [b]	1.5E-06	12.0	1.2E-07 [b]	3.6E-06	140	2.6E-08 [b]	2.1E-05	620	3.4E-08 [b]	1.5E-06	620	2.4E-09 [b]	--
Acetone	67-64-1	6.5E-08	[6]	--	1.2E-07	[7]	--	8.3E-09	[8]	--	2.0E-08	31,000	6.6E-13 [b]	1.2E-07	140,000	8.6E-13 [b]	8.3E-09	140,000	5.9E-14 [b]	--
Acrolein	107-02-8	3.1E-26	[6]	--	5.7E-26	[7]	--	4.0E-27	[8]	--	9.8E-27	0.35	2.8E-26 [b]	5.8E-26	1.50	3.8E-26 [b]	4.0E-27	1.50	2.6E-27 [b]	--
Formaldehyde	50-00-0	1.5E-06	0.17	9.0E-06 [b]	2.8E-06	2.00	1.4E-06 [b]	1.9E-07	4.30	4.5E-08 [b]	4.8E-07	9.00	5.3E-08 [b]	2.8E-06	40.0	7.1E-08 [b]	1.9E-07	40.0	4.9E-09 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.6E-07	[6]	--	4.7E-07	[7]	--	3.3E-08	[8]	--	8.2E-08	3,000	2.7E-11 [b]	4.8E-07	13,000	3.7E-11 [b]	3.3E-08	13,000	2.6E-12 [b]	--
Phenol	108-95-2	2.4E-12	[6]	--	4.4E-12	[7]	--	3.1E-13	[8]	--	7.6E-13	200	3.8E-15 [b]	4.4E-12	880	5.0E-15 [b]	3.1E-13	880	3.5E-16 [b]	--
Propionaldehyde	123-38-6	3.0E-07	[6]	--	5.4E-07	[7]	--	3.8E-08	[8]	--	9.3E-08	8.00	1.2E-08 [b]	5.5E-07	35.0	1.6E-08 [b]	3.8E-08	35.0	1.1E-09 [b]	--
PIT																				
Cumulative TEU Risk		--	--	**7.6E-08**	--	--	**1.1E-08**	--	--	**3.6E-10**	--	--	**1.5E-10**	--	--	**2.1E-10**	--	--	**1.4E-11**	--
Dispersion Factor (ug/m³/[g/s])		**6.11**			**11.2**			**0.76**			**1.89**			**11.2**			**0.76**			--
Acetaldehyde	75-07-0	2.9E-08	0.45	6.5E-08 [b]	5.3E-08	5.50	9.7E-09 [b]	3.6E-09	12.0	3.0E-10 [b]	9.0E-09	140	6.4E-11 [b]	5.3E-08	620	8.6E-11 [b]	3.6E-09	620	5.9E-12 [b]	--
Acetone	67-64-1	2.1E-23	[6]	--	3.8E-23	[7]	--	2.6E-24	[8]	--	6.3E-24	31,000	2.0E-28 [b]	3.8E-23	140,000	2.7E-28 [b]	2.6E-24	140,000	1.8E-29 [b]	--
Acrolein	107-02-8	5.2E-24	[6]	--	9.6E-24	[7]	--	6.6E-25	[8]	--	1.6E-24	0.35	4.6E-24 [b]	9.6E-24	1.50	6.4E-24 [b]	6.6E-25	1.50	4.4E-25 [b]	--
Formaldehyde	50-00-0	1.9E-09	0.17	1.1E-08 [b]	3.5E-09	2.00	1.7E-09 [b]	2.4E-10	4.30	5.5E-11 [b]	5.8E-10	9.00	6.5E-11 [b]	3.5E-09	40.0	8.6E-11 [b]	2.4E-10	40.0	5.9E-12 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	1.6E-09	[6]	--	2.9E-09	[7]	--	2.0E-10	[8]	--	4.9E-10	3,000	1.6E-13 [b]	2.9E-09	13,000	2.2E-13 [b]	2.0E-10	13,000	1.5E-14 [b]	--
Phenol	108-95-2	1.7E-15	[6]	--	3.1E-15	[7]	--	2.1E-16	[8]	--	5.3E-16	200	2.6E-18 [b]	3.1E-15	880	3.5E-18 [b]	2.1E-16	880	2.4E-19 [b]	--
Propionaldehyde	123-38-6	6.4E-10	[6]	--	1.2E-09	[7]	--	7.9E-11	[8]	--	2.0E-10	8.00	2.5E-11 [b]	1.2E-09	35.0	3.3E-11 [b]	7.9E-11	35.0	2.3E-12 [b]	--
S_POND																				
Cumulative TEU Risk		--	--	**8.7E-06**	--	--	**1.4E-06**	--	--	**3.6E-08**	--	--	**2.6E-08**	--	--	**3.6E-08**	--	--	**2.2E-09**	--
Dispersion Factor (ug/m³/[g/s])		**7.07**			**13.3**			**0.77**			**2.12**			**12.8**			**0.77**			--
Acetaldehyde	75-07-0	2.4E-06	0.45	5.3E-06 [b]	4.5E-06	5.50	8.2E-07 [b]	2.6E-07	12.0	2.2E-08 [b]	7.2E-07	140	5.1E-09 [b]	4.3E-06	620	7.0E-09 [b]	2.6E-07	620	4.2E-10 [b]	--
Acetone	67-64-1	3.0E-09	[6]	--	5.7E-09	[7]	--	3.3E-10	[8]	--	9.0E-10	31,000	2.9E-14 [b]	5.5E-09	140,000	3.9E-14 [b]	3.3E-10	140,000	2.3E-15 [b]	--
Acrolein	107-02-8	2.0E-22	[6]	--	3.8E-22	[7]	--	2.2E-23	[8]	--	6.0E-23	0.35	1.7E-22 [b]	3.6E-22	1.50	2.4E-22 [b]	2.2E-23	1.50	1.5E-23 [b]	--
Formaldehyde	50-00-0	5.8E-07	0.17	3.4E-06 [b]	1.1E-06	2.00	5.4E-07 [b]	6.3E-08	4.30	1.5E-08 [b]	1.7E-07	9.00	1.9E-08 [b]	1.0E-06	40.0	2.6E-08 [b]	6.3E-08	40.0	1.6E-09 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.1E-08	[6]	--	4.0E-08	[7]	--	2.3E-09	[8]	--	6.3E-09	3,000	2.1E-12 [b]	3.8E-08	13,000	2.9E-12 [b]	2.3E-09	13,000	1.8E-13 [b]	--
Phenol	108-95-2	1.3E-14	[6]	--	2.4E-14	[7]	--	1.4E-15	[8]	--	3.9E-15	200	1.9E-17 [b]	2.3E-14	880	2.7E-17 [b]	1.4E-15	880	1.6E-18 [b]	--
Propionaldehyde	123-38-6	5.5E-08	[6]	--	1.0E-07	[7]	--	5.9E-09	[8]	--	1.6E-08	8.00	2.0E-09 [b]	9.9E-08	35.0	2.8E-09 [b]	5.9E-09	35.0	1.7E-10 [b]	--
R_POND																				
Cumulative TEU Risk		--	--	**7.4E-06**	--	--	**1.3E-06**	--	--	**2.3E-08**	--	--	**2.3E-08**	--	--	**4.0E-08**	--	--	**1.5E-09**	--
Dispersion Factor (ug/m³/[g/s])		**9.40**			**20.2**			**0.75**			**2.49**			**19.6**			**0.75**			--
Acetaldehyde	75-07-0	1.7E-06	0.45	3.7E-06 [b]	3.6E-06	5.50	6.5E-07 [b]	1.3E-07	12.0	1.1E-08 [b]	4.4E-07	140	3.2E-09 [b]	3.5E-06	620	5.6E-09 [b]	1.3E-07	620	2.2E-10 [b]	--
Acetone	67-64-1	7.6E-10	[6]	--	1.6E-09	[7]	--	6.0E-11	[8]	--	2.0E-10	31,000	6.5E-15 [b]	1.6E-09	140,000	1.1E-14 [b]	6.0E-11	140,000	4.3E-16 [b]	--
Acrolein	107-02-8	1.0E-22	[6]	--	2.2E-22	[7]	--	8.2E-24	[8]	--	2.7E-23	0.35	7.8E-23 [b]	2.2E-22	1.50	1.4E-22 [b]	8.2E-24	1.50	5.5E-24 [b]	--
Formaldehyde	50-00-0	6.3E-07	0.17	3.7E-06 [b]	1.3E-06	2.00	6.7E-07 [b]	5.0E-08	4.30	1.2E-08 [b]	1.7E-07	9.00	1.8E-08 [b]	1.3E-06	40.0	3.3E-08 [b]	5.0E-08	40.0	1.2E-09 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	8.6E-09	[6]	--	1.8E-08	[7]	--	6.8E-10	[8]	--	2.3E-09	3,000	7.6E-13 [b]	1.8E-08	13,000	1.4E-12 [b]	6.8E-10	13,000	5.3E-14 [b]	--
Phenol	108-95-2	4.3E-16	[6]	--	9.3E-16	[7]	--	3.5E-17	[8]	--	1.1E-16	200	5.7E-19 [b]	9.0E-16	880	1.0E-18 [b]	3.5E-17	880	3.9E-20 [b]	--
Propionaldehyde	123-38-6	3.6E-08	[6]	--	7.6E-08	[7]	--	2.8E-09	[8]	--	9.4E-09	8.00	1.2E-09 [b]	7.4E-08	35.0	2.1E-09 [b]	2.8E-09	35.0	8.1E-11 [b]	--
E_POND																				
Cumulative TEU Risk		--	--	**1.8E-06**	--	--	**2.0E-07**	--	--	**3.7E-08**	--	--	**1.3E-08**	--	--	**6.3E-09**	--	--	**2.4E-09**	--
Dispersion Factor (ug/m³/[g/s])		**1.72**			**2.31**			**0.91**			**1.06**			**2.36**			**0.91**			--
Acetaldehyde	75-07-0	4.2E-07	0.45	9.3E-07 [b]	5.6E-07	5.50	1.0E-07 [b]	2.2E-07	12.0	1.8E-08 [b]	2.6E-07	140	1.8E-09 [b]	5.7E-07	620	9.2E-10 [b]	2.2E-07	620	3.6E-10 [b]	--
Acetone	67-64-1	1.6E-10	[6]	--	2.1E-10	[7]	--	8.2E-11	[8]	--	9.6E-11	31,000	3.1E-15 [b]	2.1E-10	140,000	1.5E-15 [b]	8.2E-11	140,000	5.9E-16 [b]	--
Acrolein	107-02-8	2.4E-23	[6]	--	3.2E-23	[7]	--	1.3E-23	[8]	--	1.5E-23	0.35	4.3E-23 [b]	3.3E-23	1.50	2.2E-23 [b]	1.3E-23	1.50	8.5E-24 [b]	--
Formaldehyde	50-00-0	1.5E-07	0.17	8.7E-07 [b]	2.0E-07	2.00	1.0E-07 [b]	7.8E-08	4.30	1.8E-08 [b]	9.1E-08	9.00	1.0E-08 [b]	2.0E-07	40.0	5.1E-09 [b]	7.8E-08	40.0	2.0E-09 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	2.0E-09	[6]	--	2.7E-09	[7]	--	1.1E-09	[8]	--	1.2E-09	3,000	4.1E-13 [b]	2.7E-09	13,000	2.1E-13 [b]	1.1E-09	13,000	8.1E-14 [b]	--
Phenol	108-95-2	9.3E-17	[6]	--	1.2E-16	[7]	--	4.9E-17	[8]	--	5.7E-17	200	2.9E-19 [b]	1.3E-16	880	1.4E-19 [b]	4.9E-17	880	5.6E-20 [b]	--
Propionaldehyde	123-38-6	8.8E-09	[6]	--	1.2E-08	[7]	--	4.6E-09	[8]	--	5.4E-09	8.00	6.8E-10 [b]	1.2E-08	35.0	3.4E-10 [b]	4.6E-09	35.0	1.3E-10 [b]	--
SURGE																				
Cumulative TEU Risk		--	--	**0.11**	--	--	**0.018**	--	--	**3.8E-04**	--	--	**3.9E-04**	--	--	**5.6E-04**	--	--	**2.7E-05**	--
Dispersion Factor (ug/m³/[g/s])		**8.45**			**16.2**			**0.75**			**2.50**			**15.9**			**0.75**			--
Acetaldehyde	75-07-0	0.025	0.45	0.054 [b]	0.047	5.50	8.5E-03 [b]	2.2E-03	12.0	1.8E-04 [b]	7.2E-03	140	5.2E-05 [b]	0.046	620	7.5E-05 [b]	2.2E-03	620	3.5E-06 [b]	--
Acetone	67-64-1	9.4E-04	[6]	--	1.8E-03	[7]	--	8.4E-05	[8]	--	2.8E-04	31,000	9.0E-09 [b]	1.8E-03	140,000	1.3E-08 [b]	8.4E-05	140,000	6.0E-10 [b]	--
Acrolein	107-02-8	1.1E-22	[6]	--	2.1E-22	[7]	--	9.8E-24	[8]	--	3.2E-23	0.35	9.3E-23 [b]	2.1E-22	1.50	1.4E-22 [b]	9.8E-24	1.50	6.5E-24 [b]	--
Formaldehyde	50-00-0	9.4E-03	0.17	0.055 [b]	0.018	2.00	9.0E-03 [b]	8.4E-04	4.30	1.9E-04 [b]	2.8E-03	9.00	3.1E-04 [b]	0.018	40.0	4.4E-04 [b]	8.4E-04	40.0	2.1E-05 [b]	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	9.5E-04	[6]	--	1.8E-03	[7]	--	8.4E-05	[8]	--	2.8E-04	3,000	9.3E-08 [b]	1.8E-03	13,000	1.4E-07 [b]	8.4E-05	13,000	6.5E-09 [b]	--
Phenol	108-95-2	7.4E-07	[6]	--	1.4E-06	[7]	--	6.6E-08	[8]	--	2.2E-07	200	1.1E-09 [b]	1.4E-06	880	1.6E-09 [b]	6.6E-08	880	7.5E-11 [b]	--
Propionaldehyde	123-38-6	8.2E-04	[6]	--	1.6E-03	[7]	--	7.3E-05	[8]	--	2.4E-04	8.00	3.0E-05 [b]	1.5E-03	35.0	4.4E-05 [b]	7.3E-05	35.0	2.1E-06 [b]	--

Toxic Air Contaminant	CAS	Cancer									Noncancer									
		Residential			Worker			Child			Residential			Worker			Child			Acute
		Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Excess Risk Per Million	Calculated Conc. (a) (ug/m^3)	RBC (2) (ug/m^3)	Hazard Index	Calculated Conc. (a) (ug/m^3)	RBC (ug/m^3)	Hazard Index	Calculated Conc. (a) (ug/m^3)	RBC (ug/m^3)	Hazard Index	Hazard Index (3)
ABASE																				
Cumulative TEU Risk		--	--	**2.9E-03**	--	--	**4.7E-04**	--	--	**1.0E-05**	--	--	**7.5E-06**	--	--	**1.1E-05**	--	--	**5.0E-07**	--
Dispersion Factor (ug/m^3/[g/s])		**7.92**			**15.8**			**0.76**			**2.55**			**16.2**			**0.76**			--
Acetaldehyde	75-07-0	9.6E-04	0.45	2.1E-03 (b)	1.9E-03	5.50	3.5E-04 (b)	9.1E-05	12.0	7.6E-06 (b)	3.1E-04	140	2.2E-06 (b)	2.0E-03	620	3.2E-06 (b)	9.1E-05	620	1.5E-07 (b)	--
Acetone	67-64-1	4.4E-06	(6)	--	8.8E-06	(7)	--	4.2E-07	(8)	--	1.4E-06	31,000	4.6E-11 (b)	9.1E-06	140,000	6.5E-11 (b)	4.2E-07	140,000	3.0E-12 (b)	--
Acrolein	107-02-8	2.9E-24	(6)	--	5.8E-24	(7)	--	2.8E-25	(8)	--	9.4E-25	0.35	2.7E-24 (b)	6.0E-24	1.50	4.0E-24 (b)	2.8E-25	1.50	1.9E-25 (b)	--
Formaldehyde	50-00-0	1.2E-04	0.17	7.2E-04 (b)	2.4E-04	2.00	1.2E-04 (b)	1.2E-05	4.30	2.7E-06 (b)	4.0E-05	9.00	4.4E-06 (b)	2.5E-04	40.0	6.3E-06 (b)	1.2E-05	40.0	2.9E-07 (b)	--
Methyl isobutyl ketone (MIBK, Hexone)	108-10-1	5.1E-05	(6)	--	1.0E-04	(7)	--	4.9E-06	(8)	--	1.6E-05	3,000	5.5E-09 (b)	1.0E-04	13,000	8.0E-09 (b)	4.9E-06	13,000	3.7E-10 (b)	--
Phenol	108-95-2	1.6E-10	(6)	--	3.1E-10	(7)	--	1.5E-11	(8)	--	5.0E-11	200	2.5E-13 (b)	3.2E-10	880	3.6E-13 (b)	1.5E-11	880	1.7E-14 (b)	--
Propionaldehyde	123-38-6	2.3E-05	(6)	--	4.5E-05	(7)	--	2.2E-06	(8)	--	7.3E-06	8.00	9.1E-07 (b)	4.6E-05	35.0	1.3E-06 (b)	2.2E-06	35.0	6.2E-08 (b)	--

Notes

lb = pound; yr = year; ug = microgram; m^3 = cubic meter; RBC = risk-based concentration; TAC = toxic air contaminant.

(a) Calculated concentration (ug/m^3) = (dispersion factor [{ug/m^3}/{g/s}]) x (TAC emission rate per TEU [g/s])

TAC emission rate per TEU (g/s) = (1)

(b) Chronic (cancer/noncancer) risk = (annual concentration [ug/m^3]) / (RBC cancer or noncancer [ug/m3])

References

(1) See Table 4-2, Annual TAC Emission Rates.

(2) OAR 340-245-8010, Table 2.

(3) Represents highest modeled acute risk using the risk equivalent emission rates shown in Table 4-4.

(4) See Table 8-3, Maximum Predicted Risk Exposure Location per Significant TEU (Scrubber SU Scenario).

(5) Risk comparison value is the facility total risk rounded in accordance with OAR 340-245-0020(4)(a)(A).

(6) This TAC does not have a residential cancer RBC listed in OAR 340-245-8010, Table 2.

(7) This TAC does not have a worker cancer RBC listed in OAR 340-245-8010, Table 2.

(8) This TAC does not have a child cancer RBC listed in OAR 340-245-8010, Table 2.

(9) This TAC does not have a residential noncancer RBC listed in OAR 340-245-8010, Table 2.

(10) This TAC does not have a worker noncancer RBC listed in OAR 340-245-8010, Table 2.

(11) This TAC does not have a child noncancer RBC listed in OAR 340-245-8010, Table 2.