

Toxic Substance Accounting Report For 2020

1. FACILITY INFORMATION

Company Name:	Roseburg Forest Products Canada Ltd.
Website:	https://www.roseburg.com/Library/
Date of Report:	24/09/2021
NACIS Code:	321216
NPRI ID:	5609
O. Reg 127 ID:	5090
Site Address:	777 Fibreboard Drive, Pembroke, ON, K8A6W4 Canada
Public Contact:	Nick Mariani, Environmental Manager, 613-732-3939 ext. 76267
Highest Ranking Employee:	Alexandre Ouellette, Plant Manager, 613-732-3939 ext. 76220

2. SUBSTANCE INFORMATION

Substance Name	CAS Number	Used (tonnes)	Created (tonnes)	Released to Air (tonnes)	Amount Disposed (tonnes)	Amount Recycled (tonnes)	Amount Contained In Product (tonnes)
Ammonia	NA – 16	0	>10 to 100	>10 to 100	0	0	0
Carbon Monoxide	630-08-0	0	>10 to 100	>10 to 100	0	0	0
Formaldehyde	50-00-0	>10 to 100	>100 to 1000	>100 to 1000	0	0	0
Formic Acid	64-18-6	0	>10 to 100	>10 to 100	0	0	0
Methanol	67-56-1	>10 to 100	>100 to 1000	>100 to 1000	0	0	0
Nitrogen Oxides	11104-93-1	0	>100 to 1000	>100 to 1000	0	0	0
PM 10	NA – M09	0	>0 to 1	>0 to 1	0	0	0
PMDI	9016-87-9	>100 to 1000	0	>0 to 1	0	0	0
Total Particulate	NA – M08	0	>10 to 100	>10 to 100	0	0	0
Total VOCs	NA – M16	>10 to 100	>100 to 1000	>100 to 1000	0	0	0

3. COMPARISON TO PREVIOUS YEAR

Substance Name	CAS Number	Used/Created /Released	% Change from 2019	Rationale For Change
Ammonia	NA – 16	Used	0%	No Change
		Created	1%	Increased heater uptime in 2020
		Released to Air	1%	Increased heater uptime in 2020
Carbon Monoxide	630-08-0	Used	0%	No Change
		Created	-67%	Updated Emissions Data
		Released to Air	-67%	Updated Emissions Data
Formaldehyde	50-00-0	Used	5%	Slightly higher production runtime
		Created	1%	Slightly higher production runtime
		Released to Air	1%	Slightly higher production runtime
Formic Acid	64-18-6	Used	0%	No Change
		Created	1%	Increased heater uptime in 2020
		Released to Air	1%	Increased heater uptime in 2020
Methanol	67-56-1	Used	5%	Slightly higher production runtime
		Created	1%	Slightly higher production runtime
		Released to Air	1%	Slightly higher production runtime
Nitrogen Oxides	11104-93-1	Used	0%	No Change
		Created	50%	Updated Emissions Data
		Released to Air	50%	Updated Emissions Data
PM 10	NA – M09	Used	0%	No Change
		Created	1%	Leap year - 1 additional day.
		Released to Air	1%	Leap year - 1 additional day.
PMDI	9016-87-9	Used	448%	An increase in MDI Production Levels.
		Created	0%	No Change
		Released to Air	635%	An increase in MDI Production Levels.
Total Particulate	NA – M08	Used	0%	No Change
		Created	1%	Slightly higher production runtime
		Released to Air	1%	Slightly higher production runtime
Total VOCs	NA – M16	Used	5%	Slightly higher production runtime
		Created	1%	Slightly higher production runtime
		Released to Air	1%	Slightly higher production runtime

4. SIGNIFICANT CHANGES FROM 2019-2020

Roseburg Forest Products Canada Ltd. (Pembroke Mill) had updated emissions modelling completed in 2019 for new hybrid dust burners that were brought online in later 2020. The updated modeling mainly impacted NOx and CO emissions from switching from primarily bark combustion to a hybrid wood dust and natural gas system. Source testing of the new units was completed in mid August with results from those tests still pending, so only predictive emissions are used at this point.

Another major increase was the change in MDI usage. Market conditions (impacted by COVID 19) were favourable for operating more frequently using an alternative MDI-based resin onsite. MDI was only 2.6% of all board production in 2020 vs 0.5% in 2019.

5. TSRP ACTIVITY OBJECTIVES AND RESULTS

Activity	Steps that were taken in the reporting period to implement this option	Difference between steps taken and those in the plan and indication of whether timetable for steps will be met	Expected Results	Estimate of substance reductions achieved
Change mix of hardwood/softwood/poplar in production recipe.	Poplar chips are no longer separated from the rest of the hardwood stock. Instead, variation in hardwood feedstock is controlled by mixing hardwood chips with recycle wood fibre from the process to help ensure more uniform properties.	- Poplar is no longer being separated. - Variation in feedstock is being controlled through better mixing of materials.	- Better uniformity of feedstock properties (like pH) that can impact board quality and resin effectiveness. This is expected to reduce waste generated caused by poor board quality as a result of high variation of feed stock.	- Unknown the exact benefit. Reduced variation is associated with better uptime and reduced waste.
Increased material recirculation within the process – Change use of recycled fibre from hogfuel to board use	- The facility continues to recycle rejected wood fibre back to the start of the process.	- No change, fibre is recycled into the process as normal operation.	- Reduced resin and wood usage since recycled fibre is already processed. - Reduced waste fibre disposal.	- The exact benefit is unknown. - Resin and wood usage efficiency is improved
Install and operate dust burner	- Dust burner operated throughout 2020. - In addition, two new hybrid dust burners brought online in 2020 that can consume all the site's dust supply.	- Timetable for operating the existing dust burner was according to plan. - The addition of two new burners was a new step towards the same goal of reducing waste dust.	- Improved combustion efficiency, reduced fugitive emissions from handling loose sander dust. - Reduce the need to purchase additional wood fuel by using process residuals.	- Roughly 11k tonnes of dust burned across the three dust burning units on site.
Send ash to farms instead of landfill	- Ash approved for application on farm fields. - Wood ash material delivered to farms.	- Steps on track as detailed in plan. - Transition from bark combustion to new dust burners resulted in far less ash generation.	- Waste product is now being diverted for beneficial use.	- Over 304 tonnes of wood ash diverted to farms in 2020.
Pelletizing of sander dust	- Pelletizer not operated in 2020.	- The stoppage of the pelletizer was not part of the reduction plan. - The activation of the dust burner and new hybrid burners has made the operation of the pelletizer no longer needed.	- Reduced fugitive PM emissions from handling loose sander dust - Improved heater efficiency when utilizing "dry fuel"	- Reduce PM emissions from handling rejected wood dust. This is now achieved using the dust burners.

Control humidity level from vendors	<ul style="list-style-type: none"> - Continued from 2019, to perform moisture analysis on raw materials. - Material is billed by the dry tonne; ensuring suppliers buy in to maintain lower moisture. 	<ul style="list-style-type: none"> - Timeline set in plan still on track. - During 2020, the site switched from bark to wood dust fuel. Bark is no longer purchased so it is no longer monitored for moisture. 	<ul style="list-style-type: none"> - Reduced energy consumption in preparing chips and sawdust for refining. 	<ul style="list-style-type: none"> -- The exact benefit is unknown. - Less fuel will need to burn due to lower energy consumption needed for preparing raw material.
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6. CERTIFICATION

As of 27/9/2021, I, Alexandre Ouellette, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to above and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.



Alexandre Ouellette
 Plant Manager
 Roseburg Forest Products Canada Ltd.