

Toxics Reduction Act Public Annual Report - Calendar 2019

The legal and trade names of the owner and the operator of the facility, the street address of the facility and, if the mailing address of the facility is different from the street address, the mailing address.(See below)

Rayonier Advanced Materials Kapuskasing
1 Government Road
P.O. Box 100
Kapuskasing ON
P5N 2Y2

Facility NPRI identification number

002173

The identification number assigned to the facility by the Ministry of the Environment for the purposes of Ontario Regulation 127/01.

5625

Number of full-time employees

500

North American Industry Classification System (NAICS) - 2, 4, and 6 digit codes

31-33 - Manufacturing
3221 - Pulp, Paper & Paperboard Mills
322122 - Newsprint Mills

If applicable, the name, position and telephone number of the individual who is the contact at the facility for the public:

Public Contact (if applicable)

Ken Munnoch
Env. Mgr., Newsprint & Forest Products
705-337-9772

Title

Phone Number

Address of each person below if not the same as the facility

Facility Name

Address 1

Address 2

City

Province

Postal Code

Rayonier Advanced Materials Kapuskasing
1 Government Road
P.O. Box 100
Kapuskasing
ON
P5N 2Y2

UTM coordinates, x and y

X 396647.6

Y 5473830

Datum

WGS84

Legal name of Canadian parent company, if your facility is a subsidiary of a Canadian parent company

Parent company name

Address 1

Address 2

City

Province

Postal Code

Percent Ownership

Rayonier A.M. Canada G.P.
4 Place Ville-Marie, Suite 100
Montréal
QC
H3B 2E7
100%

Substance Accounting Information

Substance:	alpha-Pinene
CAS Number:	80-56-8
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units 0.000 Mg
The amount of substance that was created:	12.952 Mg
The amount of substance that was contained in product:	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance:	Ammonia (total)
CAS Number:	NA - 16
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units 206.365 Mg
The amount of substance that was created:	0.000 Mg
The amount of substance that was contained in product:	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance:	beta-Phellandrene
CAS Number:	555-10-2
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units 0.000 Mg
The amount of substance that was created:	4.443 Mg
The amount of substance that was contained in product:	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance:	beta-Pinene
CAS Number:	127-91-3
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units 0.000 Mg
The amount of substance that was created:	9.808 Mg
The amount of substance that was contained in product:	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance Accounting Information

Substance:	Cadmium
CAS Number:	NA - 03
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	54.879 kg
The amount of substance that was created:	0.000 kg
The amount of substance that was contained in product:	18.848 kg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance:	Carbon Monoxide
CAS Number:	630-08-0
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	0.000 Mg
The amount of substance that was created:	589.580 Mg
The amount of substance that was contained in product:	0.000 Mg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance:	d-Limonene
CAS Number:	5989-27-5
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	0.000 Mg
The amount of substance that was created:	4.013 Mg
The amount of substance that was contained in product:	0.000 Mg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance:	Ethyl Alcohol
CAS Number:	64-17-5
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	0.000 Mg
The amount of substance that was created:	2.941 Mg
The amount of substance that was contained in product:	0.000 Mg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance Accounting Information

Substance:	Formaldehyde
CAS Number:	50-00-0
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	0.000 Mg
The amount of substance that was created:	1.994 Mg
The amount of substance that was contained in product:	0.000 Mg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance:	Isopropyl Alcohol
CAS Number:	67-63-0
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	0.000 Mg
The amount of substance that was created:	5.192 Mg
The amount of substance that was contained in product:	0.000 Mg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance:	Lead
CAS Number:	NA - 08
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	252.659 kg
The amount of substance that was created:	0.000 kg
The amount of substance that was contained in product:	109.584 kg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance:	Manganese
CAS Number:	NA - 09
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
	44.861 Mg
The amount of substance that was created:	0.000 Mg
The amount of substance that was contained in product:	13.115 Mg
<p>On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en</p>	

Substance Accounting Information

Substance:	Methanol
CAS Number:	67-56-1

	Amount	Units
On a facility-wide basis: Amount that entered the facility as the substance itself or as a constituent of another substance:	0.000	Mg
The amount of substance that was created:	17.997	Mg
The amount of substance that was contained in product:	0.000	Mg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:	Methyl Isobutyl Ketone
CAS Number:	108-10-1

	Amount	Units
On a facility-wide basis: Amount that entered the facility as the substance itself or as a constituent of another substance:	0.000	Mg
The amount of substance that was created:	1.154	Mg
The amount of substance that was contained in product:	0.000	Mg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:	Oxides of Nitrogen (as NO ₂)
CAS Number:	11104-93-1

	Amount	Units
On a facility-wide basis: Amount that entered the facility as the substance itself or as a constituent of another substance:	0.000	Mg
The amount of substance that was created:	298.677	Mg
The amount of substance that was contained in product:	0.000	Mg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance:	Particulate Matter
CAS Number:	NA - M08

	Amount	Units
On a facility-wide basis: Amount that entered the facility as the substance itself or as a constituent of another substance:	0.000	Mg
The amount of substance that was created:	29.654	Mg
The amount of substance that was contained in product:	0.000	Mg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Substance Accounting Information

Substance:	Particulate Matter - PM ₁₀
CAS Number:	NA - M09
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
The amount of substance that was created:	0.000 Mg
The amount of substance that was contained in product:	14.266 Mg
	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance:	Particulate Matter - PM _{2.5}
CAS Number:	NA - M10
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
The amount of substance that was created:	0.000 Mg
The amount of substance that was contained in product:	6.821 Mg
	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance:	Phosphorus (total)
CAS Number:	NA - 22
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
The amount of substance that was created:	91.543 Mg
The amount of substance that was contained in product:	0.000 Mg
	0.000 Mg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance:	Selenium
CAS Number:	NA - 12
On a facility-wide basis:	
Amount that entered the facility as the substance itself or as a constituent of another substance:	Amount Units
The amount of substance that was created:	121.284 kg
The amount of substance that was contained in product:	0.000 kg
	90.069 kg
On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at http://www.ec.gc.ca/inrp-npri/default.asp?lang=en	

Substance Accounting Information

Substance:
CAS Number:

Sulphuric Acid
7664-93-9

On a facility-wide basis:
Amount that entered the facility as the substance itself or as a constituent of another substance:

Amount Units

The amount of substance that was created:
The amount of substance that was contained in product:

249.369	Mg
1.682	Mg
0.000	Mg

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

Annual Progress Report - Calendar 2019

Substances for which toxic substance reduction plans have been prepared:

Substance	CASRN
Ammonia (total)	NA - 16
alpha-Pinene	80-56-8
beta-Phellandrene	555-10-2
beta-Pinene	127-91-3
Cadmium (and its compounds)	NA - 03
Carbon Monoxide	630-08-0
d-Limonene	5989-27-5
Ethyl Alcohol	64-17-5
Formaldehyde	50-00-0
Isopropyl Alcohol	67-63-0
Lead (and its compounds)	NA - 08
Manganese (and its compounds)	NA - 09
Methanol	67-56-1
Methyl Isobutyl Ketone	108-10-1
Oxides of Nitrogen (as NO ₂)	11104-93-1
Particulate Matter	NA - M08
Particulate Matter - PM10	NA - M09
Particulate Matter - PM2.5	NA - M10
Phosphorus (total)	NA - 22
Selenium	NA - 12
Sulphur Dioxide (currently below reporting threshold)	7446-09-5
Sulphuric Acid	7664-93-9

Plan Objectives

The reduction of toxic substance use, creation and releases is a priority for Rayonier AM forming part of our sustainability programs and EMS. Our goal is to reduce the use and release of the above noted substances where technically and economically feasible by the timetable noted in the plan. We will achieve these reductions through procedure improvements and employee education and training. It is important to note that most of the substances noted above are naturally in the wood materials used by the facility and that most current research seeks to abate these emissions using end of pipe controls.

Toxics Reduction Progress

A comparison of the reportable substances for 2018 and 2019 indicates that there were no new substances reported for 2019. In terms of quantities of the substances reported, in general the current reporting year saw several changes in several of report categories mainly due to changes in production levels which saw an overall decrease of the total TMP produced (10% reduction), finished newsprint produced (12.5% reduction) and kiln dried lumber produced (7% reduction). These decreases accounted for the decreased quantities of trace metals “contained in product” as well as the decrease in the quantity of Methanol “created” and released. There was also a reduction in the quantity of aqua ammonia used by the effluent treatment plant in 2019 which resulted in a decrease in the quantity of this substance reported as “used” by the facility. Conversely, the quantities of Ammonia and Phosphorus released in treated effluent increased during the reporting period by 65% and 20% respectively. This was due to increases in the average Ammonia and Phosphorus concentrations in the effluent in 2019 (to 0.10 mg/L from 0.06 mg/L in the case of Ammonia and to 0.42 mg/L from 0.34 mg/L in the case of Phosphorus). Increases in the quantity of ash disposals resulted in increases in the quantities of trace metals sent to landfill. There was a moderate increase in the quantity of Sulphuric Acid used, mainly attributable to increased use at the boilerhouse, resulting in an overall increase in the use of this substance by approximately 10% when compared with the previous reporting period. A significant increase in the quantity of Phosphoric Acid used by the effluent treatment operations (approximately 49%) was noted which resulted in a corresponding increase in the reported quantity of Phosphorus (total) used in 2019. In addition, there is a reported quantity of phosphorus released to air for 2019 as previously unused NCASI emission factors for combustion sources (natural gas and biomass) are now being utilized.

Increased quantities of particulate matter species created and released are primarily due to including emissions from the operation of the facility’s paper machines which were previous not included in the site inventory for these substances.

Plan Implementation Progress

Steps taken during the reporting period were those outlined in the plan for these substances and include operational steps for continuous improvement in steam management and kiln operations. There were no deviations from or amendments made to the plan in the reporting period. The timetable outlined in the plan will be met.

There were no reductions directly attributable to any reduction options noted in the plans although it is important to note that Rayonier AM continues to make procedural improvements which may not necessarily be captured as an overall reduction in the quantity of a substance used, created or released due to the nature in which these quantities are calculated (i.e., as an absolute value as opposed to a per unit of production value).

Certification Statement - Calendar 2019

As of June 22, 2020, I certify that I have read the reports on the toxic substance reduction plans for the above noted substances 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 the Act.

The original version of this report is signed off by:

Highest Ranking Employee:

Title:

Phone Number:

Eric Eck
General Manager
705-337-1311

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.