

Toxic Reduction Plan

BASIC FACILITY INFORMATION

Substance Name & CAS #	PM	NA - M08
	PM10	NA - M09
	PM2.5	NA - M10
Facility Identification and Site Address		
Company Name	Resolute Growth	
Facility Name	Ignace Sawmill	
Facility Address	1000 Mill Road	
Coordinates	UTM Zone 15 Easting 591075 Northing 5475728	
Number of Employees		44
NPRI ID		29171
PARENT COMPANY INFORMATION		
Name & Address	Resolute FP Canada Inc., 111 Duke St., Suite 5000 Montreal, Quebec H3C 2M1	
Percent Ownership		100%
Business Number		
PRIMARY NAICS CODES		
2 Digit NAICS Code		32
4 Digit NAICS Code		3211
6 Digit NAICS Code		321111
COMPANY CONTACT INFORMATION		
Facility Public Contact	<i>Michael Gassi, Site Manager, 1-807-934-2640</i>	
Facility Technical Contact	<i>Nancy Plante, Environmental Coordinator, 1-807-929-1557 Ext 444324</i>	
Person Who Prepared Plan	<i>Aimee Matheson Rainy Lake Technical Solutions 807-276-4753</i>	
Parent Company Contact	<i>Pascale Lagacé, Vice President Environment and Climate Change 514-394-3675</i>	
Planner Responsible for Making Recommendations	<i>Name/Company/Address/Tel Pascale Lagacé, Vice President Environment and Climate Change, 514-394-3675</i>	<i>Planner Licence # TSRP0073</i>
Planner Responsible for Certification	<i>Name/Company/Address/Tel # Pascale Lagacé, Vice President Environment and Climate Change, 514-394-3675</i>	<i>Planner Licence # TSRP0073</i>

Product name:	PM Total	CAS#:	NA - M08
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	Use	Creation	Release to Air	Release to Water	Disposal	Contained in Product	
2015	0	9.1030	9.1030	0	0	0	T/y

USE: Statement of Intent

Resolute Growth - Ignace Sawmill does not use Particulate Matter in the process, therefore this plan will not address a reduction in use.

CREATION: Statement of Intent

Particulate Matter is coincidentally manufactured as a byproduct in wood products manufacturing operations. This substance is released primarily from process vents and outdoor storage of process by-products. It is also created as a fugitive emission from Road Dust generated by trucks using the facility roads. Given the absence of feasible options, Resolute Growth - Ignace Sawmill does not intend to reduce the creation of Particulate Matter at this time. The facility feels it has reduced the creation of Particulate Matter to the greatest extent that can be reasonably expected. The facility has demonstrated compliance with Ontario Regulation 419/05 which deals with substance specific ground level concentration limits of substances including all those found in this plan. The facility is in compliance with its Environmental Compliance Approval (ECA) which approves and provides limits for specific substances. The facility is also in compliance with the MOE's requirement to implement "Fugitive Dust Best Management Practices" which minimizes the creation of fugitive dust and particulate matter.

OBJECTIVES:

Resolute Growth is committed to reviewing the creation of Particulate Matter. We will investigate options to reduce or eliminate the creation of Particulate Matter within our process.

STAGES and PROCESSES

Detailed calculations and process information including flow charts are included in our TRA spreadsheets electronically and are available upon request from the Environmental Coordinator on site.

TOXIC SUBSTANCE ACCOUNTING INFORMATION:

The methods for quantifying PM are included in our TRA spreadsheets electronically and are available upon request from the Environmental Coordinator on site.

TARGETS:

	Quantity	Unit	Description of Targets	Targeted Timeframe
USE	N/A			
CREATION	N/A			

Product name:	PM Total
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CAS#:	NA - M08
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COST ESTIMATES:
Use
Particulate Matter is not used at this site

Creation							
Location	Quantity of 'Product' generated at Stage	Units of 'Product'	Toxic Substance Created (kg)	Toxic as % of 'Product' Generated	Cost 'product' Annual Production	Cost of Toxic	Notes
Sawmill	50794	MBF	3490	0.0069%	\$ 22,857,300	\$ 1,570.50	* Cost based on market cost of saleable product (estimate\$450/MBF)
Wood Fired Kiln	1,029,870.0	kg	199	0.027%	\$ 79,483	\$ 21.59	* Cost based on Cost of Shavings if purchased
Babbit Hood	2727	kg	0.3	0.00001%	\$ 27,273	\$ 0.00	* Cost based on purchase cost of Babbit (estimated at \$10/kg)
Fugitive Releases - Road Dust		kg	5414			\$ 5,469	* Cost is based on replacement cost of road material
		Sum	9103			\$ 7,061	

Disposed
Particulate Matter is not disposed at this site

Released							
Location	Quantity of 'Product' generated at Stage	Units of 'Product'	Toxic Substance Created (kg)	Toxic as % of 'Product' Generated	Cost 'product' Annual Production	Cost of Toxic	Notes
Sawmill	50794	MBF	3490	0.0069%	\$ 22,857,300	\$ 1,570.50	* Cost based on market cost of saleable product (estimate\$450/MBF)
Wood Fired Kiln	1,029,870.0	kg	199	0.027%	\$ 79,483	\$ 21.59	* Cost based on Cost of Shavings if purchased
Babbit Hood	2727	kg	0.3	0.00001%	\$ 27,273	\$ 0.00	* Cost based on purchase cost of Babbit (estimated at \$10/kg)
Fugitive Releases - Road Dust		kg	5414			\$ 5,469	* Cost is based on replacement cost of road material
		Sum	9103			\$ 7,061	

Transferred
Particulate Matter is not transferred from this site.

Contained in Product
Particulate Matter is not contained in the product.

Product name:	PM Total
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CAS#:	NA - M08
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Toxic Substance Reduction Options - must have one in each category		
Reduction Category	Description and Rational of Reduction	Option
Materials and Feedstock Substitution	Particulate Matter is generated as a by-product of the process, no material substitution is feasible.	No Options Identified
Product Design or Reformulation	A by-product from processing the wood is the main source of particulate matter emissions. Product design or reformulation does not make sense.	No Options Identified
Equipment or Process Modifications	Particulate matter is released into the air as a by-product from processing the wood. In-plant dust collection system is in place to capture releases into the air.	No Options Identified
Spill and Leak Prevention	Particulate matter is contained in the wood so there is no possibility of a spill of Particulate Matter on site.	No Options Identified
Onsite Re-use or Recycling	There is no possibility of onsite recycling or reuse of Particulate Matter	No Options Identified
Improved Inventory Management or Purchasing Techniques	Fugitive Releases of particulate matter are generated from storage piles of chips and sawdust.	Minimize storage piles wherever possible and control excess inventory.
Training and Improved Operating Practices	For combustion sources, TPM emissions are primarily related to the air pollution control equipment and combustion efficiency. Improperly tuned or operated equipment will generate increased TPM emissions.	Review maintenance procedures for air pollution control equipment.

Detailed Estimate of Reduction
The emissions calculated are based on emission factors and source testing. Whether any of the options identified will be implemented or not, they have no quantifiable reduction unless the production quantities are reduced. There are no plans to reduce production levels at this current time.

Options that are Technically/Economically Feasible
There are currently no identified options that are technically or economically feasible. We are committed to explore new technology to reduce the creation of this substance as it becomes available.

Implementation Plan
No options to implement.

Product name:	PM 10	CAS#:	NA - M09
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	Use	Creation	Release to Air	Release to Water	Disposal	Contained in Product	
2015	0	4.1620	4.1620	0	0	0	T/y

USE: Statement of Intent

Resolute Growth - Ignace Sawmill does not use Particulate Matter in the process, therefore this plan will not address a reduction in use.

CREATION: Statement of Intent

Particulate Matter is coincidentally manufactured as a byproduct in wood products manufacturing operations. This substance is released primarily from process vents and outdoor storage of process by-products. It is also created as a fugitive emission from Road Dust generated by trucks using the facility roads. Given the absence of feasible options, Resolute Growth - Ignace Sawmill does not intend to reduce the creation of Particulate Matter at this time. The facility feels it has reduced the creation of Particulate Matter to the greatest extent that can be reasonably expected. The facility has demonstrated compliance with Ontario Regulation 419/05 which deals with substance specific ground level concentration limits of substances including all those found in this plan. The facility is in compliance with it's Environmental Compliance Approval (ECA) which approves and provides limits for specific substances. The facility is also in compliance with the MOE's requirement to implement "Fugitive Dust Best Management Practices" which minimizes the creation of fugitive dust and particulate matter.

OBJECTIVES:

Resolute Growth is committed to reviewing the creation of Particulate Matter. We will investigate options to reduce or eliminate the creation of Particulate Matter within our process.

STAGES and PROCESSES

Detailed calculations and process information including flow charts are included in our TRA spreadsheets electronically and are available upon request from the Environmental Coordinator on site.

TOXIC SUBSTANCE ACCOUNTING INFORMATION:

The methods for quantifying PM are included in our TRA spreadsheets electronically and are available upon request from the Environmental Coordinator on site.

TARGETS:

	Quantity	Unit	Description of Targets	Targeted Timeframe
USE	N/A			
CREATION	N/A			

Product name: PM 10

CAS#: NA - M09

COST ESTIMATES:
 Use
 Particulate Matter is not used at this site

Creation	Quantity of 'Product' generated at Stage	Units of 'Product'	Toxic Substance Created (kg)	Toxic as % of 'Product' Generated	Cost 'product' Annual Production	Cost of Toxic	Notes
Location							
Sawmill	50794	MBF	2478	0.0049%	\$ 22,857,300	#####	* Cost based on market cost of saleable product (estimate\$450/MBF)
Wood Fired Kiln	1,029,870.0	kg	141	0.019%	\$ 79,483	\$ 15.30	* Cost based on Cost of Shavings if purchased
Babbit Hood	2727	kg	0.2	0.00001%	\$ 27,273	\$ 0.00	* Cost based on purchase cost of Babbit (estimated at \$10/kg)
Fugitive Releases - Road Dust		kg	1543			\$ 1,559	* Cost is based on replacement cost of road material
		Sum	4162			\$ 2,689	

Disposed
 Particulate Matter is not disposed at this site

Released

Location	Quantity of 'Product' generated at Stage	Units of 'Product'	Toxic Substance Created (kg)	Toxic as % of 'Product' Generated	Cost 'product' Annual Production	Cost of Toxic	Notes
Sawmill	50794	MBF	2478	0.0049%	\$ 22,857,300	#####	* Cost based on market cost of saleable product (estimate\$450/MBF)
Wood Fired Kiln	1,029,870.0	kg	141	0.019%	\$ 79,483	\$ 15.30	* Cost based on Cost of Shavings if purchased
Babbit Hood	2727	kg	0.2	0.00001%	\$ 27,273	\$ 0.00	* Cost based on purchase cost of Babbit (estimated at \$10/kg)
Fugitive Releases - Road Dust		kg	1543			\$ 1,559	* Cost is based on replacement cost of road material
		Sum	4162			\$ 2,689	

Transferred
 Particulate Matter is not transferred from this site.

Contained in Product
 Particulate Matter is not contained in the product.

Product name:	PM 10
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CAS#:	NA - M09
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Toxic Substance Reduction Options - must have one in each category		
Reduction Category	Description and Rational of Reduction	Option
Materials and Feedstock Substitution	Particulate Matter is generated as a by-product of the process, no material substitution is feasible.	No Options Identified
Product Design or Reformulation	A by-product from processing the wood is the main source of particulate matter emissions. Product design or reformulation does not make sense.	No Options Identified
Equipment or Process Modifications	Particulate matter is released into the air as a by-product from processing the wood. In-plant dust collection system is in place to capture releases into the air.	No Options Identified
Spill and Leak Prevention	Particulate matter is contained in the wood so there is no possibility of a spill of Particulate Matter on site.	No Options Identified
Onsite Re-use or Recycling	There is no possibility of onsite recycling or reuse of Particulate Matter	No Options Identified
Improved Inventory Management or Purchasing Techniques	Fugitive Releases of particulate matter are generated from storage piles of chips and sawdust.	Minimize storage piles wherever possible and control excess inventory.
Training and Improved Operating Practices	For combustion sources, TPM emissions are primarily related to the air pollution control equipment and combustion efficiency. Improperly tuned or operated equipment will generate increased TPM emissions.	Review maintenance procedures for air pollution control equipment.

<p>Detailed Estimate of Reduction</p> <p>The emissions calculated are based on emission factors and source testing. Whether any of the options identified will be implemented or not, they have no quantifiable reduction unless the production quantities are reduced. There are no plans to reduce production levels at this current time.</p>

<p>Options that are Technically/Economically Feasible</p> <p>There are currently no identified options that are technically or economically feasible. We are committed to explore new technology to reduce the creation of this substance as it becomes available.</p>

<p>Implementation Plan</p> <p>No options to implement.</p>

<p>Implementation Plan</p> <p>No options to implement.</p>

Product name:	PM 2.5	CAS#:	NA - M10
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	Use	Creation	Release to Air	Release to Water	Disposal	Contained in Product	
2015	0	1.6670	1.6670	0	0	0	T/y

USE: Statement of Intent
 Resolute Growth - Ignace Sawmill does not use Particulate Matter in the process, therefore this plan will not address a reduction in use.

CREATION: Statement of Intent
 Particulate Matter is coincidentally manufactured as a byproduct in wood products manufacturing operations. This substance is released primarily from process vents and outdoor storage of process by-products. It is also created as a fugitive emission from Road Dust generated by trucks using the facility roads. Given the absence of feasible options, Resolute Growth - Ignace Sawmill does not intend to reduce the creation of Particulate Matter at this time. The facility feels it has reduced the creation of Particulate Matter to the greatest extent that can be reasonably expected. The facility has demonstrated compliance with Ontario Regulation 419/05 which deals with substance specific ground level concentration limits of substances including all those found in this plan. The facility is in compliance with it's Environmental Compliance Approval (ECA) which approves and provides limits for specific substances. The facility is also in compliance with the MOE's requirement to implement "Fugitive Dust Best Management Practices" which minimizes the creation of fugitive dust and particulate matter.

OBJECTIVES:
 Resolute Growth is committed to reviewing the creation of Particulate Matter. We will investigate options to reduce or eliminate the creation of Particulate Matter within our process.

STAGES and PROCESSES
 Detailed calculations and process information including flow charts are included in our TRA spreadsheets electronically and are available upon request from the Environmental Coordinator on site.

TOXIC SUBSTANCE ACCOUNTING INFORMATION:
 The methods for quantifying PM are included in our TRA spreadsheets electronically and are available upon request from the Environmental Coordinator on site.

TARGETS:

	Quantity	Unit	Description of Targets	Targeted Timeframe
USE	N/A			
CREATION	N/A			

Product name: PM 2.5

CAS#: NA - M10

COST ESTIMATES:
 Use
 Particulate Matter is not used at this site

Creation	Quantity of 'Product' generated at Stage	Units of 'Product'	Toxic Substance Created (kg)	Toxic as % of 'Product' Generated	Cost 'product' Annual Production	Cost of Toxic	Notes
Location							
Sawmill	50794	MBF	1431	0.0028%	\$ 22,857,300	\$ 643.95	* Cost based on market cost of saleable product (estimate\$450/MBF)
Wood Fired Kiln	1,029,870.0	kg	82	0.011%	\$ 79,483	\$ 8.90	* Cost based on Cost of Shavings if purchased
Babbit Hood	2727	kg	0.1	0.00000%	\$ 27,273	\$ 0.00	* Cost based on purchase cost of Babbit (estimated at \$10/kg)
Fugitive Releases - Road Dust		kg	154			\$ 156	* Cost is based on replacement cost of road material
		Sum	1667			\$ 808	

Disposed
 Particulate Matter is not disposed at this site

Released

Location	Quantity of 'Product' generated at Stage	Units of 'Product'	Toxic Substance Created (kg)	Toxic as % of 'Product' Generated	Cost 'product' Annual Production	Cost of Toxic	Notes
Sawmill	50794	MBF	1431	0.0028%	\$ 22,857,300	\$ 643.95	* Cost based on market cost of saleable product (estimate\$450/MBF)
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Babbit Hood	2727	kg	0.1	0.00000%	\$ 27,273	\$ 0.00	* Cost based on purchase cost of Babbit (estimated at \$10/kg)
Fugitive Releases - Road Dust		kg	154			\$ 156	* Cost is based on replacement cost of road material
		Sum	1667			\$ 808	

Transferred
 Particulate Matter is not transferred from this site.

Contained in Product
 Particulate Matter is not contained in the product.

Product name: PM 2.5

CAS#: NA - M10

Toxic Substance Reduction Options - must have one in each category		
Reduction Category	Description and Rational of Reduction	Option
Materials and Feedstock Substitution	Particulate Matter is generated as a by-product of the process, no material substitution is feasible.	No Options Identified
Product Design or Reformulation	A by-product from processing the wood is the main source of particulate matter emissions. Product design or reformulation does not make sense.	No Options Identified
Equipment or Process Modifications	Particulate matter is released into the air as a by-product from processing the wood. In-plant dust collection system is in place to capture releases into the air.	No Options Identified
Spill and Leak Prevention	Particulate matter is contained in the wood so there is no possibility of a spill of Particulate Matter on site.	No Options Identified
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Training and Improved Operating Practices	For combustion sources, TPM emissions are primarily related to the air pollution control equipment and combustion efficiency. Improperly tuned or operated equipment will generate increased TPM emissions.	Review maintenance procedures for air pollution control equipment.

Detailed Estimate of Reduction

The emissions calculated are based on emission factors and source testing. Whether any of the options identified will be implemented or not, they have no quantifiable reduction unless the production quantities are reduced. There are no plans to reduce production levels at this current time.

Options that are Technically/Economically Feasible

There are currently no identified options that are technically or economically feasible. We are committed to explore new technology to reduce the creation of this substance as it becomes available.

Implementation Plan

No options to implement.

Implementation Plan

No options to implement.

TOXIC REDUCTION PLAN

PLANNER'S RECOMMENDATIONS AND CERTIFICATION

FACILITY: Resolute Growth – Ignace Sawmill

Company Name	Resolute Growth	
Facility Name	Ignace Sawmill	
Facility Address	1000 Mill Road, Ignace, Ontario	
Planner Responsible for Making Recommendations	Pascale Lagacé, Vice President Environment and Climate Change, (514) 394-3675	TSRP0073
Planner Responsible for Certification	Pascale Lagacé, Vice President Environment and Climate Change, (514) 394-3675	TSRP0073

GENERAL RECOMMENDATIONS

None

SPECIFIC RECOMMENDATIONS

Toxic Substance: Total Particulate Matter, PM 10, PM 2.5

No specific recommendation

CERTIFICATION BY LICENCED PLANNER

As of December 21, 2016, I, Pascale Lagacé certify that I am familiar with the processes at Resolute Growth Ignace Sawmill that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act, 2009 that are set out in plan dated December 31, 2016 and that the plan complies with the Act and Ontario Regulation 455/09 (General) made under the Act.

Toxic Substances:

**PM Total
PM 10
PM 2.5**



Signature

December 21, 2016

Date

**NAME: Pascale Lagacé
TITLE: Vice President Environment and Climate Change
COMPANY: Resolute Forest Products
LICENCE # TSRP0073**

CERTIFICATION BY CERTIFYING OFFICIAL

As of December 31, 2016, I certify that I have read the Toxics Reduction plan for all substances below, and am familiar with their contents and to my knowledge the information contained in the report is factually accurate and the report complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 made under the Act.

Toxic Substances:

PM Total

PM 10

PM 2.5



Signature

December 31, 2016

Date

NAME: Michael Gassi,

TITLE: Site Manager

COMPANY: Resolute Growth -- Ignace Sawmill

