

# TEMBEC - HEARST OPERATIONS

67 FONTAINE DRIVE, HEARST ONTARIO, P0L 1N0

## TOXICS REDUCTION ACT TOXIC SUBSTANCE REDUCTION PLAN SUMMARY 2013

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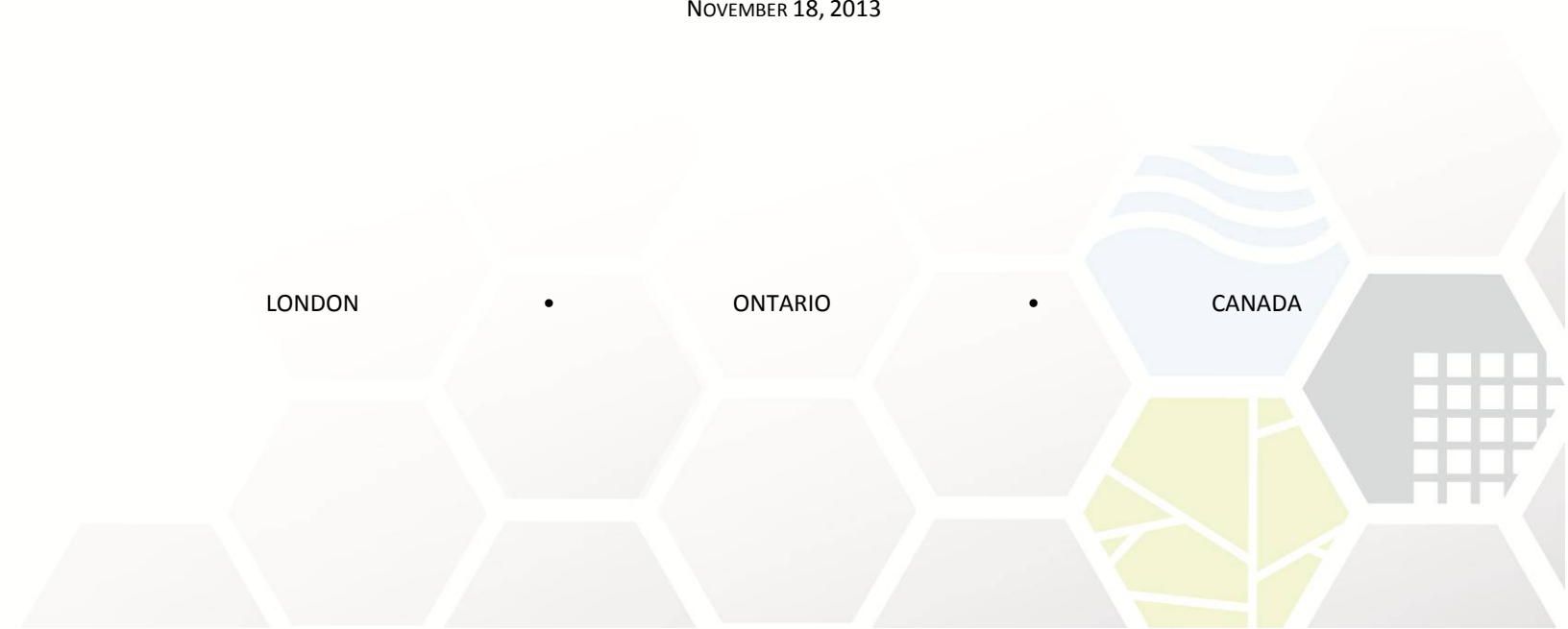
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## 1. PLAN SUMMARY – ALPHA PINENE

<b>Name and CASRN of Substance</b>	Alpha-pinene	80-56-8
<b>Substances for which other plans have been prepared</b>	Beta-pinene	127-91-3
	Methanol	67-56-1
	Particulate Matter $\leq$ 2.5 Microns (PM <sub>2.5</sub> )	Not Applicable
	Particulate Matter $\leq$ 10 Microns (PM <sub>10</sub> )	Not Applicable

### 1.1 Basic Facility Information

Basic facility information is included in Section 5 of this document.

### 1.2 Toxic Reduction Policy Statement of Intent

Tembec's corporate vision is to be an industry leader in value creation by being the best steward of resources: human, capital and forest.

In 2000, Tembec was the first major Canadian forest products company to implement across all of its operations an Environmental Management System (EMS) that complies with the ISO 14001 standard. Our EMS provides a rigorous management structure that is applied in all Tembec manufacturing and forest operations under our control. The EMS is an internationally recognized set of environmental best management practices that guides all activities that have a relationship with the environment. The EMS facilitates the achievement of important sustainability objectives and programs, such as maximizing environmental performance in manufacturing, and maintaining Forest Stewardship Council® (FSC®) certification in all forestry operations.

Tembec shares with the community important responsibilities towards the environment in which we live and work. The Corporation supports the responsible stewardship of resources, including forest, fish and aquatic habitat, wildlife, air, land and water. Responsible stewardship, combined with a continual improvement process, makes possible sustained economic development and an improved quality of life. In this spirit, Tembec commits to implementing and maintaining an effective environmental management program that will govern its attitude and action in environmental matters and will benefit the environment, the community, the shareholders, employees and customers.

Wherever feasible, Tembec will reduce the creation and release of Alpha-pinene in full compliance with all federal and provincial regulations. Toxic substance reduction will be an ongoing effort at Tembec, and we will continue to monitor technological advancements to ensure that options that are both technologically and financially viable are implemented at our facility.

### 1.3 Reduction Objectives

Tembec’s goal is to reduce the creation of Alpha-pinene 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 Alpha-pinene and its precursors are naturally in the wood materials used by the facility and that most current research seeks to abate Alpha-pinene and VOC emissions using end of pipe controls.

### 1.4 Description of Substance

Alpha-pinene is created as a by-product through the drying of green lumber. Evaporation of moisture containing Alpha-pinene precursors in the green lumber results in the release of Alpha-pinene to the atmosphere. Alpha-pinene is also naturally occurring in the wood waste generated by the sawmill operations.

### 1.5 Toxic Substance Reduction Option to be Implemented

The following option has been identified for implementation to reduce the creation and release of Alpha-pinene:

- Process Modification – green lumber sorting based on moisture content to prevent over and under drying of lumber in the wood kilns.
- Improved Operating Practices – monitoring of lumber moisture content to prevent over-drying of the lumber in the wood kilns.

Alpha-pinene reductions due to implementing the option above are as follows:

Company Name: Tembec

Substance: Alpha-pinene

CASRN: 80-56-8

Reduction Option: Process Modification and Improved Operating Practices

	Used	Created	In Product	On-site Releases			Disposals		Recycling
				Air	Water	Land	On-site	Off-site	Off-site
Baseline	0	5.517	0	5.517	0	0	0	0	0
Estimated reduced amount	0	4.965	0	4.965	0	0	0	0	0
Reduction	0	0.552	0	0.552	0	0	0	0	0
% Reduction	NA	10%	NA	10%	NA	NA	NA	NA	NA

Note: All values are presented in metric tonnes (Mg) per year unless noted.

## **1.6 Plan Summary Statement**

This plan accurately reflects the content of the toxic substance reduction plan for Alpha-pinene, prepared on behalf of Tembec, dated November 18, 2013.

## **1.7 Copy of Plan Certifications**

A copy of the plan certifications are presented in Section 6 of this document.

## 2. PLAN SUMMARY – BETA-PINENE

<b>Name and CASRN of Substance</b>	Beta-pinene	127-91-3
<b>Substances for which other plans have been prepared</b>	Alpha-pinene Methanol Particulate Matter ≤ 2.5 Microns (PM <sub>2.5</sub> ) Particulate Matter ≤10 Microns (PM <sub>10</sub> )	80-56-8 67-56-1 Not Applicable Not Applicable

### 2.1 Basic Facility Information

Basic facility information is included in Section 5 of this document.

### 2.2 Toxic Reduction Policy Statement of Intent

Tembec's corporate vision is to be an industry leader in value creation by being the best steward of resources: human, capital and forest.

In 2000, Tembec was the first major Canadian forest products company to implement across all of its operations an Environmental Management System (EMS) that complies with the ISO 14001 standard. Our EMS provides a rigorous management structure that is applied in all Tembec manufacturing and forest operations under our control. The EMS is an internationally recognized set of environmental best management practices that guides all activities that have a relationship with the environment. The EMS facilitates the achievement of important sustainability objectives and programs, such as maximizing environmental performance in manufacturing, and maintaining Forest Stewardship Council® (FSC®) certification in all forestry operations.

Tembec shares with the community important responsibilities towards the environment in which we live and work. The Corporation supports the responsible stewardship of resources, including forest, fish and aquatic habitat, wildlife, air, land and water. Responsible stewardship, combined with a continual improvement process, makes possible sustained economic development and an improved quality of life. In this spirit, Tembec commits to implementing and maintaining an effective environmental management program that will govern its attitude and action in environmental matters and will benefit the environment, the community, the shareholders, employees and customers.

Wherever feasible, Tembec will reduce the creation and release of Beta-pinene in full compliance with all federal and provincial regulations. Toxic substance reduction will be an ongoing effort at Tembec, and we will continue to monitor technological advancements to ensure that options that are both technologically and financially viable are implemented at our facility.

## 2.3 Reduction Objectives

Tembec’s goal is to reduce the creation of Beta-pinene 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 Beta-pinene and its precursors are naturally in the wood materials used by the facility and that most current research seeks to abate Beta-pinene and VOC emissions using end of pipe controls.

## 2.4 Description of Substance

Beta-pinene is created as a by-product through the drying of green lumber. Evaporation of moisture containing Beta-pinene precursors in the green lumber results in the release of Beta-pinene to the atmosphere. Beta-pinene is also naturally occurring in the wood waste generated by the sawmill operations.

## 2.5 Toxic Substance Reduction Option to be Implemented

The following option has been identified for implementation to reduce the creation and release of Beta-pinene:

- Process Modification – green lumber sorting based on moisture content to prevent over and under drying of lumber in the wood kilns.
- Improved Operating Practices – monitoring of lumber moisture content to prevent over-drying of the lumber in the wood kilns.

Beta-pinene reductions due to implementing the option above are as follows:

Company Name: Tembec

Substance: Beta-pinene

CASRN: 127-91-3

Reduction Option: Process Modification and Improved Operating Practices

	Used	Created	In Product	On-site Releases			Disposals		Recycling
				Air	Water	Land	On-site	Off-site	Off-site
Baseline	0	2.172	0	2.172	0	0	0	0	0
Estimated reduced amount	0	1.955	0	1.955	0	0	0	0	0
Reduction	0	0.217	0	0.217	0	0	0	0	0
% Reduction	NA	10%	NA	10%	NA	NA	NA	NA	NA

Note: All values are presented in metric tonnes (Mg) per year unless noted.

## **2.6 Plan Summary Statement**

This plan accurately reflects the content of the toxic substance reduction plan for Beta-pinene, prepared on behalf of Tembec, dated November 18, 2013.

## **2.7 Copy of Plan Certifications**

A copy of the plan certifications are presented at the end of this document.



### 3. PLAN SUMMARY – PARTICULATE MATTER ≤ 2.5 MICRONS (PM<sub>2.5</sub>)

<b>Name and CASRN of Substance</b>	Particulate Matter ≤2.5 Microns (PM <sub>2.5</sub> )	Not Applicable
<b>Substances for which other plans have been prepared</b>	Alpha-pinene	80-56-8
	Beta-pinene	127-91-3
	Methanol	67-56-1
	Particulate Matter ≤ 10 Microns (PM <sub>10</sub> )	Not Applicable

#### 3.1 Basic Facility Information

Basic facility information is included in Section 5 of this document.

#### 3.2 Toxic Reduction Policy Statement of Intent

Tembec’s corporate vision is to be an industry leader in value creation by being the best steward of resources: human, capital and forest.

In 2000, Tembec was the first major Canadian forest products company to implement across all of its operations an Environmental Management System (EMS) that complies with the ISO 14001 standard. Our EMS provides a rigorous management structure that is applied in all Tembec manufacturing and forest operations under our control. The EMS is an internationally recognized set of environmental best management practices that guides all activities that have a relationship with the environment. The EMS facilitates the achievement of important sustainability objectives and programs, such as maximizing environmental performance in manufacturing, and maintaining Forest Stewardship Council® (FSC®) certification in all forestry operations.

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Wherever feasible, Tembec will reduce the creation and release of Particulate Matter ≤ 2.5 microns (PM<sub>2.5</sub>) in full compliance with all federal and provincial regulations. Toxic substance reduction will be an ongoing effort at Tembec, and we will continue to monitor technological advancements to ensure that options that are both technologically and financially viable are implemented at our facility.

### **3.3 Reduction Objectives**

Tembec's goal is to reduce the use and release of PM<sub>2.5</sub> where technically and economically feasible. No technically or economically feasible reduction options for reducing PM<sub>2.5</sub> were identified. The facility will continue to monitor new technological advancements to ensure that reduction options that are both technologically and financially viable are implemented at our facility. It is important to note that particulate matter is a natural by-product of combustion and drying at the facility and that most current research seeks to abate particulate matter emissions using end of pipe controls.

### **3.4 Description of Substance**

PM<sub>2.5</sub> is a by-product of natural gas combustion at the facility. It is also created as a result of traffic on unpaved roads at the facility and by the sawing of green lumber.

### **3.5 Toxic Substance Reduction Option to be Implemented**

There are currently no reduction options that have been identified as being both technically and economically feasible for this substance.

### **3.6 Plan Summary Statement**

This plan accurately reflects the content of the toxic substance reduction plan for PM<sub>2.5</sub>, prepared on behalf of Tembec, dated November 18, 2013.

### **3.7 Copy of Plan Certifications**

A copy of the plan certifications are presented at the end of this document.

#### 4. PLAN SUMMARY – PARTICULATE MATTER ≤ 10 MICRONS (PM<sub>10</sub>)

Name and CASRN of Substance	Particulate Matter ≤10 Microns (PM <sub>10</sub> )	Not Applicable
Substances for which other plans have been prepared	Alpha-pinene	80-56-8
	Beta-pinene	127-91-3
	Methanol	67-56-1
	Particulate Matter ≤2.5 Microns (PM <sub>2.5</sub> )	Not Applicable

##### 4.1 Basic Facility Information

Basic facility information is included in Section 5 of this document.

##### 4.2 Toxic Reduction Policy Statement of Intent

Tembec’s corporate vision is to be an industry leader in value creation by being the best steward of resources: human, capital and forest.

In 2000, Tembec was the first major Canadian forest products company to implement across all of its operations an Environmental Management System (EMS) that complies with the ISO 14001 standard. Our EMS provides a rigorous management structure that is applied in all Tembec manufacturing and forest operations under our control. The EMS is an internationally recognized set of environmental best management practices that guides all activities that have a relationship with the environment. The EMS facilitates the achievement of important sustainability objectives and programs, such as maximizing environmental performance in manufacturing, and maintaining Forest Stewardship Council® (FSC®) certification in all forestry operations.

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Wherever feasible, Tembec will reduce the creation and release of Particulate Matter ≤10 Microns (PM<sub>10</sub>) in full compliance with all federal and provincial regulations. Toxic substance reduction will be an ongoing effort at Tembec, and we will continue to monitor technological advancements to ensure that options that are both technologically and financially viable are implemented at our facility.

### **4.3 Reduction Objectives**

Tembec's goal is to reduce the use and release of PM<sub>10</sub> where technically and economically feasible. No technically or economically feasible reduction options for reducing PM<sub>10</sub> were identified. The facility will continue to monitor new technological advancements to ensure that reduction options that are both technologically and financially viable are implemented at our facility. It is important to note that most current research seeks to abate these emissions using end of pipe controls.

### **4.4 Description of Substance**

PM<sub>10</sub> is a by-product of natural gas combustion at the facility. It is also created as a result of traffic on unpaved roads at the facility and by the sawing of green lumber.

### **4.5 Toxic Substance Reduction Option to be Implemented**

There are currently no reduction options that have been identified as being both technically and economically feasible for this substance.

### **4.6 Plan Summary Statement**

This plan accurately reflects the content of the toxic substance reduction plan for PM<sub>10</sub>, prepared on behalf of Tembec, dated November 18, 2013.

### **4.7 Copy of Plan Certifications**

A copy of the plan certifications are presented at the end of this document.

## 5. BASIC FACILITY INFORMATION

Facility Identification and Site Address		
Company Name	Tembec	
Facility Name	Tembec Hearst	
Facility Address	Physical Address:	Mailing Address
	67 Fontaine Drive Hearst, ON	67 Fontaine Drive P.O. Box 880 Hearst ON P0L 1N0
Spatial Coordinates (UTM)	307951.4 (Easting)	5507884.7 (Northing)
Datum	WGS84	
Number of Employees	127 (Full time equivalents)	
NPRI ID	7232	
ON MOE ID	-	
Parent Company Information		
Parent Company Name & Address	Tembec 10, chemin Gatineau Témiscaming, PQ J0Z 3R0	
Percent Ownership	100%	
Primary North American Industrial Classification System Code (NAICS)		
2 Digit NAICS Code	31-33 Manufacturing	
4 Digit NAICS Code	3211 Sawmills and Wood Preservation	
6 Digit NAICS Code	321111 Sawmills	
Company Contact Information		
Facility Public Contact	Linda Coates, VP Communications and Public Affairs	Contact Address
	Linda.Coates@tembec.com	Tembec 405 The West Mall, Suite 800 Toronto, ON M9C 5J1
	Phone: 416-775-2819	
	Fax: 416 621-3119	

## 6. COPY OF PLAN CERTIFICATION

### Certification by the Highest Ranking Employee

As of December 12, 2013, I, Gilles Fontaine, certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

Toxic Substances:

Alpha-pinene	Beta-pinene
Particulate Matter $\leq 10$ Microns (PM <sub>10</sub> )	Particulate Matter $\leq 2.5$ Microns (PM <sub>2.5</sub> )



Gilles Fontaine  
General Manager  
Tembec Hearst Operations

### Certification by Licensed Planner

As of December 12, 2013, I, Tim Logan certify that I am familiar with the processes at Tembec's Hearst facility 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 the plan dated November 18, 2013 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

Toxic Substances:

Alpha-pinene	Beta-pinene
Particulate Matter $\leq 10$ Microns (PM <sub>10</sub> )	Particulate Matter $\leq 2.5$ Microns (PM <sub>2.5</sub> )



Tim Logan (License No. TSRP0003)  
President  
O2E Inc. Environmental Consultants