



# Toxic Reduction

## 2016 Plan Summary

### Nitrogen Oxides (NOx)

Date Issued: November 21, 2017

388 Goodyear Rd.

Napanee, Ontario



## SUBSTANCE AND FACILITY INFORMATION

<b>Toxic Substances</b>	
Substance Name	Nitrogen Oxides (NOx)
Chemical Abstracts Service Registry Number	11104-93-1
Other toxic substance plans	Zinc (7440-66-6), Ethanol (64-17-5), Methyl Iso-Butyl Ketone (108-10-1), Toluene (108-88-3), Xylene (1330-20-7), PM 2.5, Cobalt (NA-05), Ethylene Glycol (107-21-1)
<b>Facility Information</b>	
Legal Company Name	Goodyear Canada Inc.
Facility Name	Napanee
Facility Address	388 Goodyear Road, R.R.7, Napanee, ON, K7R 3L2
Web Site Address	<a href="http://www.goodyear.ca/en-CA/tires-home">http://www.goodyear.ca/en-CA/tires-home</a>
Spatial Coordinates of Facility	UTM Easting: 344558.90; UTM Northing: 4905595.73; UTM Zone 18T
Number of Full Time Employees (or equivalents)	764
NPRI ID#	1322
O.Reg 127/01 ID	NA
<b>Primary North American Industrial Classification system Code (NAICS)</b>	
2 Digit NAICS Code	31-33 - Manufacturing
4 Digit NAICS Code	3262 (Rubber Product Mfg.)
6 Digit NAICS Canada Code	326210 (Tire Manufacturing)
<b>Facility Public Contact Information</b>	
Name & Title	Julie McLachlan (Environmental Coordinator), 613-354-7835
<b>Plan Developer / Coordinator and Technical Contact</b>	
Name & Title	Julie McLachlan (Environmental Coordinator), 613-354-7835
<b>Certified Planner Contact</b>	
Name	Ted Bailey ( <a href="mailto:ted@aurisi.ca">ted@aurisi.ca</a> , 613-893-3680, TSRP0031)
<b>Highest Ranking Employee</b>	
Name & Title	Lester Brooks (Plant Manager), 613-354-7701
<b>Corporate Headquarter Contact Information</b>	
Parent Company Contact	Carlton Williams (Regional Environmental Manager)
Address	The Goodyear Tire & Rubber Company 200 Innovation Way Akron, OH 44316, USA
Phone	330-796-0811
Percentage Ownership	100%



# INTRODUCTION

Ontario's *Toxics Reduction Act* and Regulation (O.Reg 455/09) aims to protect the health of people and the environment by reducing the use and emission of toxic substances. The Act is the cornerstone of Ontario's Toxics Reduction Strategy, which is focused on:

- Managing and reducing the use and creation of toxic substances in order to protect the environment and human health
- Informing the public about toxics in their communities; and
- Helping ensure that Ontario is well-positioned to compete in an emerging green global economy.

This strategy supplements the traditional 'end of pipe' approach to managing toxic substances released into the environment by focusing on reducing the creation and use of these substances at the 'front end' of manufacturing processes.

The act requires regulated facilities to:

- Track and quantify the toxic substances that they use and create
- Develop plans to reduce the use and creation of these substances; and
- Make summaries of their plans available to the public.

Goodyear Canada Inc.'s (Goodyear's) facility located in Napanee, Ontario, Canada (Goodyear Napanee) has developed the following Toxic Reduction Plan for NOx pursuant to the Act.

This Plan Summary summarizes NOx Reduction Plan for the Napanee facility. It has been prepared to meet the regulatory obligations specified in Section 10 of the Act and Section 27(1) of Ontario Regulation 455/09, as amended from time to time.

# PLAN SUMMARY STATEMENT

This plan summary accurately reflects the content of the toxic substance reduction plan for NOx, prepared by Goodyear (Napanee), and dated November 6, 2017.



## FACILITY DESCRIPTION

Goodyear Napanee manufactures high quality tires for the North American Tire (NAT) market and is a certified ISO14001:2004 facility. The Napanee facility operates 24 hours per day, 7 days a week and ~360 days a year.

## EXPLANATION FOR SUBSTANCE USE OR CREATION

Nitrogen Oxides are created during the combustion of fuels. Oxygen and nitrogen dissociate and subsequently react in the high temperature flame zone near the natural gas burner. The formation of NO<sub>x</sub> increases with oxygen concentration, peak temperature and time of exposure at peak temperature.

In a diesel fueled internal combustion engine, nitrogen oxide formation is directly related to high pressures and temperatures during the combustion process and to the nitrogen content of the fuel.

Goodyear Napanee uses natural gas to produce steam and hot water and heat the facility. Goodyear Napanee also operates diesel engines - two emergency fire pumps, one electrical generator and when necessary a portable air compressor. In 2016, the use of a portable air compressor drove our NO<sub>x</sub> emissions up to trigger the NPRI and therefore TRA reporting.

## STATEMENT OF INTENT

It is not the intent of Goodyear to reduce NO<sub>x</sub> emissions in 2017 because there are no technically and economically feasible options that provide improved environmental performance. However, prior to the development of this plan, Goodyear installed an electric air compressor to replace the portable diesel burning compressor. It is anticipated that this change will reduce NO<sub>x</sub> emissions by 7.04 tonnes.

## OPTIONS FOR IMPLEMENTATION

To reduce the production of NO<sub>x</sub> at the Goodyear Napanee facility, Goodyear Napanee has considered many options. Energy costs are a large part of the overhead of a Tire Plant and are constantly monitored and opportunities for saving are critical for good business. While no options could be identified that were both technically and economically feasible at this time, Goodyear will continue to work on researching and developing options.



## TOXIC REDUCTION OBJECTIVES & TARGETS

Technically and economically feasible options have not been identified which reduce the creation or release of NOx.

## CERTIFICATION

### **CERTIFICATION BY HIGHEST RANKING EMPLOYEE**

As of November 13, 2017, I, Lester Brooks, 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.

NOx

A handwritten signature in black ink that reads 'Lester Brooks'.

Lester Brooks, Plant Manager  
The Goodyear Tire & Rubber Company (Napanee)

### **CERTIFICATION BY LICENSED PLANNER**

As of November 7, 2017, I, Ted Bailey, certify that I am familiar with the processes at Goodyear (Napanee) 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 6, 2017 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

NOx

A handwritten signature in black ink that reads 'Ted Bailey'.

Ted Bailey [Planner License # TSRP0031]  
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