

Toxic Substance Reduction Summary Plans

Bombardier Inc. - Thunder Bay Plant

December 12, 2012

BASIC FACILITY INFORMATION		
Substances Included in the Plans		
<ul style="list-style-type: none"> ▪ Chromium (and its compounds) (CAS 7440-47-3) ▪ Cobalt (and its compounds) (CAS 7440-48-4) ▪ Copper (and its compounds) (CAS 7440-50-8) ▪ Lead (and its compounds) (CAS 7439-92-1) ▪ Manganese (and its compounds) (CAS 7439-96-5) 	<ul style="list-style-type: none"> ▪ Nickel (and its compounds) (CAS7440-02-0) ▪ Selenium (and its compounds) (CAS 7782-49-2) ▪ Zinc (and its compounds) (CAS 7440-66-6) ▪ Toluene (CAS No. 108-88-3) ▪ Xylene (all isomers) (CAS No. 1330-20-7) 	
Facility Identification and Site Address		
Company Name	Bombardier Inc.	
Facility Name	Thunder Bay Plant	
Facility Address	Physical Address:	Mailing Address:
	1001 Montreal Street, Thunder Bay, Ontario P7C 4V6	800 Rene Levesque Blvd. West, Montreal, Quebec H3B 1Y8
Spatial Coordinates of Facility	UTM Zone 16 UTM Easting: 329178 UTM Northing: 5358545	
Number of Employees	1100	
NPRI ID	0000005601	
Parent Company (PC) Information		
PC Name & Address	Bombardier Inc.	800 Rene Levesque Blvd. West, Montreal, Quebec H3B 1Y8
Percent Ownership for each PC	100%	
Primary North American Industrial Classification System Code (NAICS)		
2 Digit NAICS Code	33 (Manufacturing)	
4 Digit NAICS Code	3365 (Railroad rolling stock manufacturing)	
6 Digit NAICS Code	336510 (Railroad rolling stock manufacturing)	
Facility and Planner Contact Information		
Facility Public Contact	Lindsay Fenton	Bombardier Inc.
	Email: lindsay.fenton@ca.transport.bombardier.com	Same as facility address
	Phone: 8074751929	
Planner Responsible for Making Recommendations and Certification	Karri Legarrie	RWDI AIR Inc.
	Planner Licence No.: TSRP0065	Same as Person who Prepared the Plan
	Email: karri.legarrie@rwdi.com	
	Phone: (519) 823-1311 x 2510	

CHROMIUM (AND ITS COMPOUNDS) (CAS 7440-47-3)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Chromium (and its compounds). Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Chromium (and its compounds) is present as an ingredient in aluminum, stainless steel and steel metals. Chromium (and its compounds) is present in the natural gas used for space heaters, hot water boilers, stress relieving oven and heat treat oven. Chromium (and its compounds) is also assumed to be present in paints.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Chromium (and its compounds), dated December 12, 2012.

COBALT (AND ITS COMPOUNDS) (CAS 7440-48-4)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Cobalt (and its compounds). Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Cobalt (and its compounds) is present as an ingredient in aluminum and stainless steel metals.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Cobalt (and its compounds), dated December 12, 2012.

COPPER (AND ITS COMPOUNDS) (CAS 7440-50-8)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Copper (and its compounds). Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Copper (and its compounds) is present as an ingredient in aluminum, stainless steel and steel metals. Copper (and its compounds) is also present in the natural gas used for space heaters, hot water boilers, stress relieving oven and heat treat oven.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Copper (and its compounds), dated December 12, 2012.

LEAD (AND ITS COMPOUNDS) (CAS 7439-92-1)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Lead (and its compounds). Therefore a 0% and 0 kilograms reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Lead (and its compounds) is present as an ingredient in aluminum and steel metals.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Lead (and its compounds), dated December 12, 2012.

MANGANESE (AND ITS COMPOUNDS) (CAS 7439-96-5)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Manganese (and its compounds). Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Manganese (and its compounds) is present as an ingredient in aluminum, stainless steel and steel metals. Manganese (and its compounds) is also present in the natural gas used for space heaters, hot water boilers, stress relieving oven and heat treat oven.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Manganese (and its compounds), dated December 12, 2012.

NICKEL (AND ITS COMPOUNDS) (CAS 7440-02-0)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Nickel (and its compounds). Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Nickel (and its compounds) is present as an ingredient in aluminum, stainless steel and steel metals. Nickel (and its compounds) is also present in the natural gas used for space heaters, hot water boilers, stress relieving oven and heat treat oven.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Nickel (and its compounds), dated December 12, 2012.

SELENIUM (AND ITS COMPOUNDS) (CAS 7782-49-2)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Selenium (and its compounds). Therefore a 0% and 0 kilograms reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Selenium (and its compounds) is present as an ingredient in stainless steel metals.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Selenium (and its compounds), dated December 12, 2012.

ZINC (AND ITS COMPOUNDS) (CAS 7440-66-6)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Zinc (and its compounds). Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Zinc (and its compounds) is present as an ingredient in aluminum metals.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Zinc (and its compounds), dated December 12, 2012.

TOLUENE (CAS NO. 108-88-3)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
Bombardier Inc. - Thunder Bay Plant intends to reduce the use of Toluene by 70% or 6.64 tonnes by December 31, 2013 from the implementation of the options listed below. Bombardier Inc. - Thunder Bay Plant will strive to meet the expected reductions quantified with this plan.
Description of Use of Substance
Toluene is present as an ingredient in paints, sealants, and solvents. Toluene is also present in the natural gas used for space heaters, hot water boilers, stress relieving oven and heat treat oven.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider equipment or process modification, inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Toluene, dated December 12, 2012.

XYLENE (ALL ISOMERS) (CAS NO. 1330-20-7)
Statement of Intent
In accordance with s. 4(1)1 of the Toxics Reduction Act and Bombardier Inc. - Thunder Bay Plant's commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan and Corporate Policies, Bombardier Inc. - Thunder Bay Plant intends to reduce or minimize the use, creation and releases of the listed substance wherever technically and economically viable.
Objectives
An estimate of reductions could not be quantified for the use and releases of Xylene. Therefore a 0% and 0 tonnes reduction by December 31, 2013 was provided for the purpose of this plan. Once the option is implemented Bombardier Inc. - Thunder Bay Plant will be able to more accurately estimate the reductions to be achieved.
Description of Use of Substance
Xylene is present as an ingredient in paints.
Description Option(s) to be Implemented
Bombardier Inc. - Thunder Bay Plant will be implementing reduction options through the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) that consider inventory management/purchasing techniques and training or improved operating practices. Bombardier Inc. - Thunder Bay Plant will continue to strive for reduction of use of toxic substances through the initiatives set out in ISO 14001 Environmental Management Systems.

This plan summary accurately reflects the current version of the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Bombardier Inc. - Thunder Bay Plant for Xylene (all isomers), dated December 12, 2012.

Certification by Highest Ranking Employee

As of December 12, 2012, I, Rene Lalande, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and comply with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act.

<u>Substance</u>	<u>Date of Certified Plan</u>
Chromium (and its compounds) (CAS 7440-47-3)	December 12, 2012
Cobalt (and its compounds) (CAS 7440-48-4)	December 12, 2012
Copper (and its compounds) (CAS 7440-50-8)	December 12, 2012
Lead (and its compounds) (CAS 7439-92-1)	December 12, 2012
Manganese (and its compounds) (CAS 7439-96-5)	December 12, 2012
Nickel (and its compounds) (CAS 7440-02-0)	December 12, 2012
Selenium (and its compounds) (CAS 7782-49-2)	December 12, 2012
Toluene (CAS No. 108-88-3)	December 12, 2012
Xylene (all isomers) (CAS No. 1330-20-7)	December 12, 2012
Zinc (and its compounds) (CAS 7440-66-6)	December 12, 2012

Original signed copies are retained on-site.

Rene Lalande
VP Thunder Bay Operations
Bombardier Inc. Thunder Bay Plant

Certification by Licenced Planner

As of December 12, 2012, I, Karri Legarrie, certify that I am familiar with the processes at Thunder Bay Plant that use or create the toxic substances 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 toxic substance reduction plans referred to below for the toxic substances and that the plans comply with the Act and Ontario Regulation 455/09 (General) made under that Act.

<u>Substance</u>	<u>Date of Certified Plan</u>
Chromium (and its compounds) (CAS 7440-47-3)	December 12, 2012
Cobalt (and its compounds) (CAS 7440-48-4)	December 12, 2012
Copper (and its compounds) (CAS 7440-50-8)	December 12, 2012
Lead (and its compounds) (CAS 7439-92-1)	December 12, 2012
Manganese (and its compounds) (CAS 7439-96-5)	December 12, 2012
Nickel (and its compounds) (CAS 7440-02-0)	December 12, 2012
Selenium (and its compounds) (CAS 7782-49-2)	December 12, 2012
Toluene (CAS No. 108-88-3)	December 12, 2012
Xylene (all isomers) (CAS No. 1330-20-7)	December 12, 2012
Zinc (and its compounds) (CAS 7440-66-6)	December 12, 2012

Original signed copies are retained on-site.

Karri Legarrie, Planner Licence TSRP0065
Air Quality Senior Scientist / Toxic Substance Reduction Planner
RWDI AIR Inc.