

FCA Canada Inc. Etobicoke Casting Plant

TRA Plan Summary December 2012



Public Reporting Under O. Reg. 455/09 Public Plan Summary

Chrysler Canada Inc. Etobicoke Casting Plant

December 7, 2012



ENVIRONMENTAL REPORTING:

The National Pollution Release Inventory (NPRI) is Canada's legislated, publically accessible inventory of releases (to air, water and land), disposals and transfers for recycling that are associated with industrial activity. Over 84,000 facilities report to the NPRI on more than 300 listed substances. Chrysler Canada Inc. has been reporting in accordance with federal NPRI regulations since its inception in 1992.

Additionally, beginning in 2010, the Toxics Reduction Act requires certain facilities in Ontario to prepare and publish toxic substance reduction plans, though implementation of the plans is voluntary. The first report under the Toxic Reduction Act and Ontario Regulation 455/09 was required in June 2011.

Regulation 455 requires facilities to report on their use and creation of certain "substances of concern". Currently the list of substances of concern under the Toxics Reduction Act includes all of the substances on the NPRI list. Therefore, in addition to reporting releases, disposals and transfers of substances listed under NPRI, Ontario facilities must report on their use and creation of these substances along with the amount of the substance contained in each product.

Vehicles are made by all manufacturers in a similar manner globally. All vehicles sold in Canada must meet the same consumer performance expectations for the Canadian market as for export markets where they are sold. To meet these expectations, many of the substances listed in Ontario Regulation 455/09 as "substances of concern" are utilized in the manufacture of all vehicles, including those assembled elsewhere and imported to Ontario for sale.



BASIC FACILITY INFORMATION

BASIC FACILITY INFORMATION				
Substances Included in the Plan				
 Copper (CAS No. 7440-50-8) 	 Zinc (CAS No. 7440-66-6) 			
Facility Identification and Site Address				
Company Name	Chrysler Canada Inc.			
Facility Name	Etobicoke Casting Plant			
Facility Address	Physical Address:	Mailing Address:		
	15 Brown's Line Etobicoke, ON M8W 3S3	Same as physical address		
Spatial Coordinates of Facility	4827800, 617800 (NAD 1983)			
Number of Employees	250			
NPRI ID	199			
Primary North American Industrial Classification System Code (NAICS)				
2 Digit NAICS Code	33 (Manufacturing)			
4 Digit NAICS Code	3315 (Foundries)			
6 Digit NAICS Code	331523 (Non Ferrous Foundries Die Casting Foundries)			
Facility and Planner Contact Information				
Facility Public Contact	Sue Forest	Chrysler Canada Inc.		
	Email: <u>sf3@chrysler.com</u>	3939 Rhodes Drive		
	Phone: (519) 973-2864	Windsor, On N9A 4H6		



EXISTING ENVIRONMENTAL MANAGEMENT SYSTEMS

Chrysler Canada Inc. is committed to the responsible management of all of its facilities and operations. This includes a proactive approach towards protecting public health and the natural environment through existing and planned environmental and sustainability initiatives. All Canadian operations have implemented comprehensive environmental management systems including Pollution Prevention commitments through World Class Manufacturing (WCM) and ISO 14001 certified Environmental Management Systems. Through these initiatives, each Chrysler facility intends to reduce or minimize its use and/or creation of each listed substance wherever possible. More specifically, the Etobicoke Casting Plant (ECP) facility is dedicated to reducing its use and creation of toxic substances by continually striving for operational and process efficiency, innovation, and conservation.

In fact, Chrysler Group LLC as a whole has adopted a global approach such that each facility has defined a standard process-based Environment Management System that identifies a process for continuous improvement, ongoing measurement of metrics tracked through scorecards and use of objective statements. The key to the success of the ISO 14001 is that metrics are reviewed by a third party accredited body to ensure that the Environment Management Systems strive for continuous improvement, meet or exceed regulatory standards and document all activities in accordance with the procedures outlined in the system.

As an example of the continuous improvement efforts that have been implemented within the ECP, the following graph outlines the trends of copper and zinc (air, disposal and recycling) in kilograms reported to NPRI per quantity of purchased aluminum (tonnes) per year (Figure 2). The trend shows data from 2004 to 2011 and highlights (on a per unit production basis) that ECP has already reduced copper and zinc usage since peak historical period by 41% and 40%, respectively for copper and zinc.



Figure 2: Historical Copper and Zinc Trends



PLAN SUMMARY FOR EACH SUBSTANCE

COPPER (CAS NO. 7440-50-8)

Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention through World Class Manufacturing initiatives, ISO 14001 certified Environmental Management Systems and Corporate Polices, ECP intends to reduce or minimize the use of the listed substances wherever possible.

Objectives

ECP does not intend to implement a reduction option for Copper. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements in an effort to reduce Copper in the future.

Description of Used of Substance

Copper is used at the facility to manufacture cast parts. Copper is an alloy contained within the aluminum metal used to manufacture parts.

Rationale for No Option(s) to be Implemented

In accordance with s. 4(1)6 of the Toxic Reduction Act, ECP has completed a detailed technical, and in some cases an economical, review of all proposed options within the seven mandatory categories and as a result of this in-depth evaluation, is choosing not to implement any of the options. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements, as it has done continually throughout the years, in an effort to reduce toxic substances where feasible.

This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Chrysler Etobicoke Casting Plant for Copper, dated December 7, 2012



ZINC (CAS NO. 7440-66-6)

Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention through World Class Manufacturing initiatives, ISO 14001 certified Environmental Management Systems and Corporate Polices, ECP intends to reduce or minimize the use of the listed substance wherever possible.

Objectives

Etobicoke Casting Plant (ECP) does not intend to implement a reduction option for Zinc. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements in an effort to reduce Zinc in the future.

Description of Used of Substance

Zinc is used at the facility to manufacture cast parts. Zinc is an alloy contained within the aluminum metal used to manufacture parts.

Rationale for No Option(s) to be Implemented

In accordance with s. 4(1)6 of the Toxic Reduction Act, ECP has completed a detailed technical, and in some cases an economical, review of all proposed options within the seven mandatory categories and as a result of this in-depth evaluation is choosing not to implement any of the options. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements as it has done continually throughout the years, in an effort to reduce toxic substances where feasible.

This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Chrysler Etobicoke Casting Plant for Zinc, dated December 7, 2012

CHRYSLER

Certification by Highest Ranking Employee

As of December 7, 2012, I, Kevin O'Brien, 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.

Substance

- Copper (CAS No. 7440-50-8)
- Zinc (CAS No. 7440-66-6)

/SIGNED

signature redscted for privacy purposes per O.Reg 455/09 a signature in a certification may be redacted and replaced with an indication that the original was signed. O. Reg. 295/18, s. 2 (2).

Kevin O'Brien Plant Manager Chrysler Canada Inc. Etobicoke Casting Plant Date of Certified Plan December 7, 2012 December 7, 2012



Certification by Licensed Planner

As of December 7, 2012, I, Mark Vanderheyden, certify that I am familiar with the processes at Etobicoke Casting 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.

Substance

- Copper (CAS No. 7440-50-8) December
- Zinc (CAS No. 7440-66-6)

/SIGNED signature redacted for privacy purposes per 0.Reg 455/09 a signature in a certification may be redacted and replaced with an indication that the original was signed. 0. Reg. 295/18, s. 2 (2).

Mark Vanderheyden, Planner License #0241 Project Director / Toxic Substance Reduction Planner RWDI AIR Inc. Date of Certified Plan December 7, 2012 December 7, 2012



FCA Canada Inc. Etobicoke Casting Plant

TRA Plan Summary December 2013



Public Reporting Under O. Reg. 455/09 Public Plan Summary

Chrysler Canada Inc. Etobicoke Casting Plant

December 13, 2013



ENVIRONMENTAL REPORTING:

The National Pollution Release Inventory (NPRI) is Canada's legislated, publically accessible inventory of releases (to air, water and land), disposals and transfers for recycling that are associated with industrial activity. Over 84,000 facilities report to the NPRI on more than 300 listed substances. Chrysler Canada Inc. has been reporting in accordance with federal NPRI regulations since its inception in 1992.

Additionally, beginning in 2010, the Toxics Reduction Act requires certain facilities in Ontario to prepare and publish toxic substance reduction plans, though implementation of the plans is voluntary. The first report under the Toxic Reduction Act and Ontario Regulation 455/09 was required in June 2011.

Regulation 455 requires facilities to report on their use and creation of certain "substances of concern". Currently the list of substances of concern under the Toxics Reduction Act includes all of the substances on the NPRI list. Therefore, in addition to reporting releases, disposals and transfers of substances listed under NPRI, Ontario facilities must report on their use and creation of these substances along with the amount of the substance contained in each product.

Vehicles are made by all manufacturers in a similar manner globally. All vehicles sold in Canada must meet the same consumer performance expectations for the Canadian market as for export markets where they are sold. To meet these expectations, many of the substances listed in Ontario Regulation 455/09 as "substances of concern" are utilized in the manufacture of all vehicles, including those assembled elsewhere and imported to Ontario for sale.



BASIC FACILITY INFORMATION

BASIC FACILITY INFORMATION				
Substances Included in the Plan				
 Particulate Matter PM₁₀ (CAS No. NA-M09) Particulate Matter PM_{2.5} (CAS No. NA-I 				
Facility Identification and Site Address				
Company Name	Chrysler Canada Inc.			
Facility Name	Etobicoke Casting Plant			
Facility Address	Physical Address:	Mailing Address:		
	15 Brown's Line Etobicoke, ON M8W 3S3	Same as physical address		
Spatial Coordinates of Facility	4827800, 617800 (NAD 1983)			
Number of Employees	450			
NPRI ID	199			
Primary North American Industrial Classification System Code (NAICS)				
2 Digit NAICS Code	33 (Manufacturing)			
4 Digit NAICS Code	3315 (Foundries)			
6 Digit NAICS Code	331523 (Non Ferrous Foundries Die Casting Foundries)			
Facility Contact Information				
Facility Public Contact	Sue Forest	Chrysler Canada Inc.		
	Email: <u>sf3@chrysler.com</u>	3939 Rhodes Drive		
	Phone: (519) 973-2864	Windsor, On N9A 4H6		



EXISTING ENVIRONMENTAL MANAGEMENT SYSTEMS

Chrysler Canada Inc. is committed to the responsible management of all of its facilities and operations. This includes a proactive approach towards protecting public health and the natural environment through existing and planned environmental and sustainability initiatives. All Canadian operations have implemented comprehensive environmental management systems including Pollution Prevention commitments through World Class Manufacturing (WCM) and ISO 14001 certified Environmental Management Systems. Through these initiatives, each Chrysler facility intends to reduce or minimize its use and/or creation of each listed substance wherever possible. More specifically, the Etobicoke Casting Plant (ECP) facility is dedicated to reducing its use and creation of toxic substances by continually striving for operational and process efficiency, innovation, and conservation.

In fact, Chrysler Group LLC as a whole has adopted a global approach such that each facility has defined a standard process-based Environment Management System that identifies a process for continuous improvement, ongoing measurement of metrics tracked through scorecards and use of objective statements. The key to the success of the ISO 14001 is that metrics are reviewed by a third party accredited body to ensure that the Environment Management Systems strive for continuous improvement, meet or exceed regulatory standards and document all activities in accordance with the procedures outlined in the system.

As an example of the continuous improvement efforts that have been implemented within the plant, the following graph outlines the trends of PM_{10} and $PM_{2.5}$ emissions in kilograms report to NPRI per quantity of purchased aluminum (tonnes) per year (Figure 1). The trend shows data from 2005 to 2012 and highlights (on a per unit production basis) that ECP has already reduced the creation of PM_{10} and $PM_{2.5}$ by 90%.



Figure 1: Historical PM₁₀ & PM_{2.5} Trends



PLAN SUMMARY FOR EACH SUBSTANCE

PM₁₀ (CAS NO. NA – M09)

Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention through World Class Manufacturing initiatives, ISO 14001 certified Environmental Management Systems and Corporate Polices, ECP intends to reduce or minimize the use of the listed substances wherever possible.

Objectives

ECP does not intend to implement a reduction option for PM_{10} under the Ontario Toxic Reduction Act. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements in an effort to reduce the creation of PM_{10} in the future.

Description of Creation of Substance

The majority of PM_{10} is created through the operation of aluminum furnaces and diecast machines. A small portion of the PM_{10} is created through other processes such as combustion equipment, the cooling tower and refractory work.

Rationale for No Option(s) to be Implemented

In accordance with s. 4(1)6 of the Toxic Reduction Act, ECP has completed a detailed technical, and in some cases an economical, review of all proposed options within the seven mandatory categories and as a result of this in-depth evaluation, is choosing not to implement any of the options under the Ontario Toxic Reduction. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements, as it has done continually throughout the years, in an effort to reduce toxic substances where feasible.

This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Chrysler Etobicoke Casting Plant for PM_{10} , dated December 13, 2013.



PM_{2.5} (CAS NO. NA – M10)

Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention through World Class Manufacturing initiatives, ISO 14001 certified Environmental Management Systems and Corporate Polices, ECP intends to reduce or minimize the use of the listed substance wherever possible.

Objectives

Etobicoke Casting Plant (ECP) does not intend to implement a reduction option for $PM_{2.5}$ under the Ontario Toxic Reduction. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements in an effort to reduce the creation of $PM_{2.5}$ in the future.

Description of Creation of Substance

The majority of $PM_{2.5}$ is created through the operation of aluminum furnaces and diecast machines. A small portion of the $PM_{2.5}$ is created through other processes such as combustion equipment, the cooling tower and refractory work.

Rationale for No Option(s) to be Implemented

In accordance with s. 4(1)6 of the Toxic Reduction Act, ECP has completed a detailed technical, and in some cases an economical, review of all proposed options within the seven mandatory categories and as a result of this in-depth evaluation is choosing not to implement any of the options under the Ontario Toxic Reduction. ECP will continue to investigate process efficiencies and continuous improvement efforts through World Class Manufacturing initiatives, ISO 14001 EMS objectives, business initiatives and product requirements as it has done continually throughout the years, in an effort to reduce toxic substances where feasible.

This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Chrysler Etobicoke Casting Plant for $PM_{2.5}$, dated December 13, 2013.



Certification by Highest Ranking Employee

As of December 13, 2013, I, Kevin O'Brien, 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.

Substance	Date of Certified Plan
 Particulate Matter PM₁₀ (CAS No. NA-M09) 	December 13, 2013
Particulate Matter PM _{2.5} (CAS No. NA-M10)	December 13, 2013



signature redacted for privacy purposes per O.Reg 455/09 a signature in a certification may be redacted and replaced with a indication that the original was signed. O. Reg. 295/18, s. 2 (2).

Kevin O'Brien Plant Manager Chrysler Canada Inc. Etobicoke Casting Plant



Certification by Licensed Planner

As of December 13, 2013, I, Brad Bergeron, certify that I am familiar with the processes at Etobicoke Casting 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.

Substance

Substance	Date of Certified Plan
 Particulate Matter PM₁₀ (CAS No. NA-M09) 	December 13, 2013
 Particulate Matter PM_{2.5} (CAS No. NA-M10) 	December 13, 2013

/SIGNED

signature redacted for privacy purposes per O.Reg 455/09 a signature in a certification may be redacted and replaced with an indication that the original was signed. O. Reg. 295/18, s. 2 (2).

Brad Bergeron, Planner License #0242 Senior Project Manager / Toxic Substance Reduction Planner RWDI AIR Inc.