

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

<b>BASIC FACILITY INFORMATION</b>		
<b>Substances Included in the Plan</b>		
<ul style="list-style-type: none"> <li>▪ Copper (CAS No. 7440-50-8)</li> <li>▪ Zinc (CAS No. 7440-66-6)</li> </ul>		
<b>Facility Identification and Site Address</b>		
<b>Company Name</b>	Chrysler Canada Inc.	
<b>Facility Name</b>	Etobicoke Casting Plant	
<b>Facility Address</b>	<b>Physical Address:</b>	<b>Mailing Address:</b>
	15 Brown's Line Etobicoke, ON M8W 3S3	Same as physical address
<b>Spatial Coordinates of Facility</b>	4827800, 617800 (NAD 1983)	
<b>Number of Employees</b>	250	
<b>NPRI ID</b>	199	
<b>Primary North American Industrial Classification System Code (NAICS)</b>		
<b>2 Digit NAICS Code</b>	33 (Manufacturing)	
<b>4 Digit NAICS Code</b>	3315 (Foundries)	
<b>6 Digit NAICS Code</b>	331523 (Non Ferrous Foundries Die Casting Foundries)	
<b>Facility and Planner Contact Information</b>		
<b>Facility Public Contact</b>	Sue Forest	Chrysler Canada Inc.
	Email: <a href="mailto:sf3@chrysler.com">sf3@chrysler.com</a>	3939 Rhodes Drive CIMS 242-01-03
	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

<b>COPPER (CAS NO. 7440-50-8)</b>	
<b>Statement of Intent</b>	
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.	
<b>Objectives</b>	
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.	
<b>Description of Used of Substance</b>	
Copper is used at the facility to manufacture cast parts. Copper is an alloy contained within the aluminum metal used to manufacture parts.	
<b>Rationale for No Option(s) to be Implemented</b>	
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*

<b>ZINC (CAS NO. 7440-66-6)</b>
<b>Statement of Intent</b>
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 Policies, ECP intends to reduce or minimize the use of the listed substance wherever possible.
<b>Objectives</b>
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.
<b>Description of Used of Substance</b>
Zinc is used at the facility to manufacture cast parts. Zinc is an alloy contained within the aluminum metal used to manufacture parts.
<b>Rationale for No Option(s) to be Implemented</b>
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*



### 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.

<u>Substance</u>	<u>Date of Certified Plan</u>
▪ Copper (CAS No. 7440-50-8) .....	December 7, 2012
▪ Zinc (CAS No. 7440-66-6) .....	December 7, 2012

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



### **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.

<u>Substance</u>	<u>Date of Certified Plan</u>
▪ Copper (CAS No. 7440-50-8) .....	December 7, 2012
▪ Zinc (CAS No. 7440-66-6) .....	December 7, 2012



---

Mark Vanderheyden, Planner License #0241  
Project Director / Toxic Substance Reduction Planner  
RWDI AIR Inc.

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

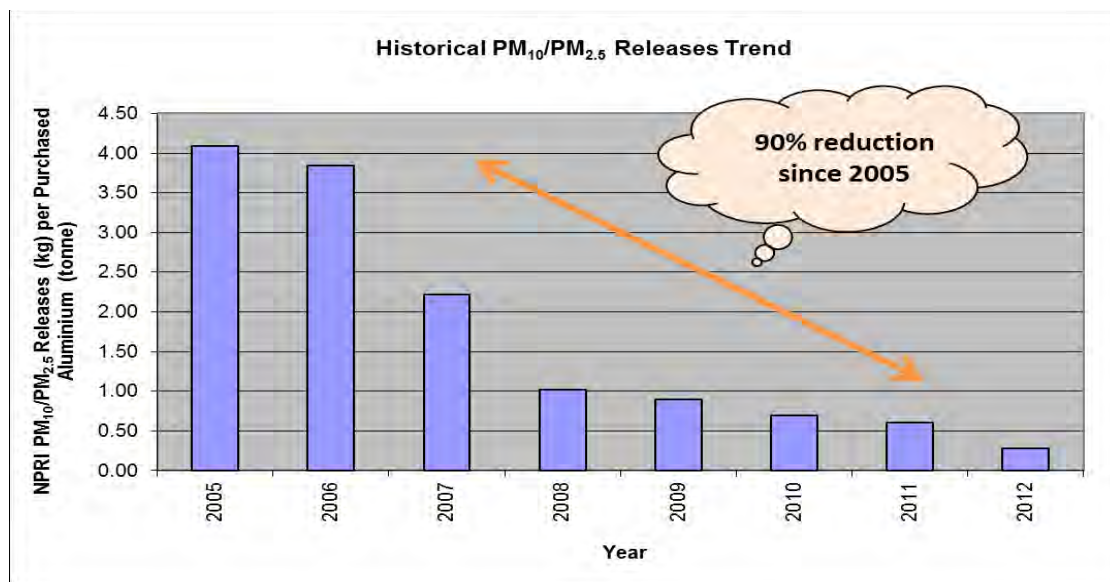
<b>BASIC FACILITY INFORMATION</b>		
<b>Substances Included in the Plan</b>		
<ul style="list-style-type: none"> <li>▪ Particulate Matter PM<sub>10</sub> (CAS No. NA-M09)</li> <li>▪ Particulate Matter PM<sub>2.5</sub> (CAS No. NA-M10)</li> </ul>		
<b>Facility Identification and Site Address</b>		
<b>Company Name</b>	Chrysler Canada Inc.	
<b>Facility Name</b>	Etobicoke Casting Plant	
<b>Facility Address</b>	<b>Physical Address:</b>	<b>Mailing Address:</b>
	15 Brown's Line Etobicoke, ON M8W 3S3	Same as physical address
<b>Spatial Coordinates of Facility</b>	4827800, 617800 (NAD 1983)	
<b>Number of Employees</b>	450	
<b>NPRI ID</b>	199	
<b>Primary North American Industrial Classification System Code (NAICS)</b>		
<b>2 Digit NAICS Code</b>	33 (Manufacturing)	
<b>4 Digit NAICS Code</b>	3315 (Foundries)	
<b>6 Digit NAICS Code</b>	331523 (Non Ferrous Foundries Die Casting Foundries)	
<b>Facility Contact Information</b>		
<b>Facility Public Contact</b>	Sue Forest	Chrysler Canada Inc.
	Email: <a href="mailto:sf3@chrysler.com">sf3@chrysler.com</a>	3939 Rhodes Drive CIMS 242-01-03
	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<sub>10</sub> and PM<sub>2.5</sub> 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<sub>10</sub> and PM<sub>2.5</sub> by 90%.



**Figure 1: Historical PM<sub>10</sub> & PM<sub>2.5</sub> Trends**

## PLAN SUMMARY FOR EACH SUBSTANCE

<b>PM<sub>10</sub> (CAS NO. NA – M09)</b>
<b>Statement of Intent</b>
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.
<b>Objectives</b>
ECP does not intend to implement a reduction option for PM <sub>10</sub> 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 <sub>10</sub> in the future.
<b>Description of Creation of Substance</b>
The majority of PM <sub>10</sub> is created through the operation of aluminum furnaces and diecast machines. A small portion of the PM <sub>10</sub> is created through other processes such as combustion equipment, the cooling tower and refractory work.
<b>Rationale for No Option(s) to be Implemented</b>
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<sub>10</sub>, dated December 13, 2013.*

<b>PM<sub>2.5</sub> (CAS NO. NA – M10)</b>
<b>Statement of Intent</b>
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 Policies, ECP intends to reduce or minimize the use of the listed substance wherever possible.
<b>Objectives</b>
Etobicoke Casting Plant (ECP) does not intend to implement a reduction option for PM <sub>2.5</sub> 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 <sub>2.5</sub> in the future.
<b>Description of Creation of Substance</b>
The majority of PM <sub>2.5</sub> is created through the operation of aluminum furnaces and diecast machines. A small portion of the PM <sub>2.5</sub> is created through other processes such as combustion equipment, the cooling tower and refractory work.
<b>Rationale for No Option(s) to be Implemented</b>
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<sub>2.5</sub>, 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.

<u>Substance</u>	<u>Date of Certified Plan</u>
▪ Particulate Matter PM <sub>10</sub> (CAS No. NA-M09).....	December 13, 2013
▪ Particulate Matter PM <sub>2.5</sub> (CAS No. NA-M10).....	December 13, 2013

/s/ Kevin O'Brien

---

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.

<u>Substance</u>	<u>Date of Certified Plan</u>
▪ Particulate Matter PM <sub>10</sub> (CAS No. NA-M09).....	December 13, 2013
▪ Particulate Matter PM <sub>2.5</sub> (CAS No. NA-M10).....	December 13, 2013

/s/ Brad Bergeron

---

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