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## 2012 TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

### ALUMINUM OXIDE, PM2.5 & PM10

#### JOHNSON MATTHEY LTD.

#### INTRODUCTION

Johnson Matthey Precision Castings manufactures ferrous and non-ferrous precision investment castings on a jobbing basis ranging in cast weight from under 1 lb. to 200 lbs. Castings are sold into industries such as the oil and gas industry, food industry, mining, pump and valves, etc.

The manufacturing site in St. Catharines is approximately 40,000 square feet in size and consists of wax making, shelling, melting and pouring of metal into ceramic moulds, cut-off, grinding, cleaning and shipping. The St. Catharines site is certified to quality systems ISO 9001:2008 and environmental management systems (EMS) ISO 14001:2004. Both systems were recertified about mid-2012.

The St. Catharines site is part of a much larger international company with headquarters in England. Johnson Matthey worldwide including the St. Catharines site is a company very involved in sustainability, environmental and health and safety issues and improvements such as energy reduction programs, lighting initiatives, cost reductions, ergonomics, etc.

With respect to the Ontario Toxic Reduction Act our foundry has to report three substances, namely aluminum oxide, PM2.5 & PM10. The plan submitted shows the options available to optimize the use and creation of these three substances, however at this time there are no specific targets for reductions as we are governed by our customers in a jobbing environment who specify to us their ASTM metal standards. Nonetheless, we will continue to look for opportunities to reduce any waste from these substances that currently find their way into a stream other than complete recycling.

#### DESCRIPTION OF THE TOXIC SUBSTANCES

There are three Phase II toxic substances that require the development of a toxic substance reduction plan based on the criteria set out in the Toxics Reduction Act, 2009 and Ontario Regulation 455/09.

##### **Aluminum Oxide**

**CAS # 1344-28-1**

- used in 10 different process at the facility
- has unique quantifications
- has unique direct and indirect cost estimates

##### **Particulate Matter less than or equal to 10 microns (PM10)**

**CAS # NA-M09**

- created in 9 different process at the facility

##### **Particulate Matter less than or equal to 2.5 microns (PM2.5)**

**CAS # NA-M10**

- created in 9 different process at the facility

Note: A separate plan is develop for each substance. PM10 and PM2.5 travel together through processes and many aspects of their individual plans are similar.

**BASIC FACILITY INFORMATION**

<b>Facility Information and Site Address</b>		
<b>Company Name</b>	Johnson Matthey Ltd.	
<b>Facility Name</b>	Johnson Matthey Limited-Precision Castings	
	<b>Physical Address</b>	<b>Mailing Address</b>
<b>Facility Address</b>	16 Smith Street St. Catharines ON L2P 3J1	Same as physical address
<b>Spatial Coordinates of Facility</b>	Latitude: 43.166871° Longitude: -79.216460° Easting: 644980.88 m E, Northing: 4780892.12 m N	
<b>Number of Employees</b>	58	
<b>NPRI ID</b>	5761	
<b>Parent Company (PC) Information</b>		
<b>PC Name &amp; Address</b>	Johnson Matthey PLC 25 Farringdon Street, London, EC4A4AB	
<b>Percent Ownership for PC</b>	100 per cent	
<b>Business Number</b>	896266780	
<b>Primary North American Industrial Classification System Code (NAICS)</b>		
<b>2 Digit NAICS</b>	31 - 33 Manufacturing	
<b>4 Digit NAICS</b>	3315 - Foundries	
<b>6 Digit NAICS</b>	331514 - Steel Foundries	
<b>Company Contact Information</b>		
<b>Facility Public Contact</b>	Keith Neureuther, General Manager	Same address as facility
	<a href="mailto:keith.neureuther@matthey.com">keith.neureuther@matthey.com</a>	
	Phone: (905) 682-9258 ext 222	
	Fax: (905)-682-8222	
<b>Facility Technical Contact</b>	Keith Neureuther, General Manager	Same address as facility
	<a href="mailto:keith.neureuther@matthey.com">keith.neureuther@matthey.com</a>	
	Phone: (905) 682-9258 ext 222	
	Fax: (905)-682-8222	
<b>Company Coordinator Contact</b>	Keith Neureuther, General Manager	Same address as facility
	<a href="mailto:keith.neureuther@matthey.com">keith.neureuther@matthey.com</a>	
	Phone: (905) 682-9258 ext 222	
	Fax: (905)-682-8222	
<b>Person who Prepared the Plan</b>	Mihaela Draghici, Environmental Coordinator	Address: 7-150 Jardin Drive, Concord, ON L4K 3P9
	Envirovision Inc. mdraghici@envirovision-inc.com	
	Phone: (905) 761-1783	Fax: (905) 761-6524
<b>Highest Ranking Employee</b>	Keith Neureuther, General Manager	Same address as facility
	<a href="mailto:keith.neureuther@matthey.com">keith.neureuther@matthey.com</a>	
	Phone: (905) 682-9258 ext 222	
	Fax: (905)-682-8222	

<b>Planner Information</b>		
<b>Planner Responsible for Making Recommendations</b>	Mihaela Draghici	Address: Contact address: 7-150 Jardin Drive, Concord, Ontario
	Planner license Number: TSRP0131	
	mdraghici@envirovision-inc.com	
	Phone: (905) 791-1783	
<b>Planner Responsible for Certification</b>	Mihaela Draghici	Address: Contact address: 7-150 Jardin Drive, Concord, Ontario
	Planner license Number: TSRP0131	
	mdraghici@envirovision-inc.com	
	Phone: (905) 791-1783	
	Fax: (905) 761-1783	

**STATEMENT OF INTENT**

Johnson Matthey Ltd. is committed to playing a leadership role in protecting the environment. Whenever feasible, we will continue to look for opportunities to reduce the use of aluminum oxide and creation of PM2.5 and PM10.

**OBJECTIVES**

We will continue to look for opportunities to reduce the use of aluminum oxide and creation of PM2.5 and PM10.

**OPTIONS TO BE IMPLEMENTED (OR STATEMENT THAT NONE ARE TO BE IMPLEMENTED)**

JML is committed to ongoing sustainability and cost efficiencies, and this along with acknowledging that all customers provide and specify ASTM alloys to us means at this time there are no additional options for the facility to implement.

**STATEMENT THAT THE PLAN SUMMARY ACCURATELY REFLECTS THE PLAN**

This plan summary accurately reflects the Toxic Substance Reduction Plans, dated September 17, 2013, prepared for the following substances: Aluminum Oxide, PM2.5 and PM10.

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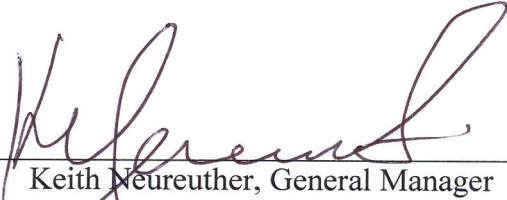
**CERTIFICATION BY HIGHEST RANKING EMPLOYEE**

As of September 17, 2013, I, Keith Neureuther, 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

**[Aluminum Oxide]**

**[Particulate Matter less than or equal to 10 microns (PM10)]**

**[Particulate Matter less than or equal to 2.5 microns (PM2.5)]**



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Keith Neureuther, General Manager  
Johnson Matthey Limited-Precision  
Castings (Highest Ranking Employee)

September 17, 2013

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Date

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**CERTIFICATION BY LICENSED PLANNER**

As of September 17, 2013, I, Mihaela Draghici, certify that I am familiar with the processes at Johnson Matthey Limited-Precision Castings 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 that Act and Ontario Regulation 455/09 (General) made under that Act.

**[Aluminum Oxide], September 17, 2013**

**[Particulate Matter less than or equal to 10 microns (PM10)], September 17, 2013**

**[Particulate Matter less than or equal to 2.5 microns (PM2.5)], September 17, 2013**



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Mihaela Draghici, Environmental Consultant  
TSRP0131  
Toxic Substance Reduction Planner

September 17, 2013

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Date