

# Toxic Substance Reduction Plans

## Nemak of Canada Windsor Aluminum Plant

December 17, 2012

## BASIC FACILITY INFORMATION

### Substances Included in the Plan

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>▪ Phenol (CAS No. 108-95-2)</li> <li>▪ Aluminum (Fume or Dust) (CAS No. 7429-90-5)</li> </ul> | <ul style="list-style-type: none"> <li>▪ Copper (CAS No. 7440-50-8)</li> <li>▪ Lead (CAS No. 7439-92-1)</li> </ul> |
|--|--|

### Facility Identification and Site Address

<b>Company Name</b>	Nemak of Canada Corporation	
<b>Facility Name</b>	Windsor Aluminum Plant	
<b>Facility Address</b>	<b>Physical Address:</b>	<b>Mailing Address:</b>
	4600 G.N. Booth Drive Windsor, ON N9C 4G8	Same as physical address
<b>Spatial Coordinates of Facility</b>	UTM Easting 328217, UTM Northing 4682614, NAD1983	
<b>Number of Employees</b>	281	
<b>NPRI ID</b>	4416	
<b>Ontario MOE ID Number</b>	5879	

### Parent Company (PC) Information

<b>PC Name &amp; Address</b>	Same as above	Same as above
<b>Percent Ownership for each PC</b>	100%	

### Primary North American Industrial Classification System Code (NAICS)

<b>2 Digit NAICS Code</b>	33 (Manufacturing)
<b>4 Digit NAICS Code</b>	3315 (Foundries)
<b>6 Digit NAICS Code</b>	331529 (Non Ferrous Foundries except Die Casting)

### Facility and Planner Contact Information

<b>Facility Public / Technical Contact</b>	Annik White	Nemak of Canada
	Email: <a href="mailto:Annik.White@nemak.com">Annik.White@nemak.com</a>	Same as Parent Company
	Phone: (519) 250-2540	
<b>Planner Responsible for Certification &amp; Recommendations</b>	Mark Vanderheyden	RWDI AIR Inc.
	Planner Licence No.: TSRP# 0241	650 Woodlawn Road West Guelph, ON N1K 1B8
	Email: <a href="mailto:Mark.Vanderheyden@rwdi.com">Mark.Vanderheyden@rwdi.com</a>	
	Phone: (519) 823-1311 x 2249	

## PHENOL (CAS NO.108-95-2)

### Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan, the Facility intends to reduce or minimize the use or creation of the listed substance wherever possible.

### Objectives

The facility intends to reduce the use of Phenols by 0.122 tonnes or 0.73% or 0.08 kg/ 1 tonne of clean cast by December 31, 2017 provided the reduction aligns with ISO 14001 EMS objectives, business initiatives and products lines. Nematik will strive to meet the expected reductions quantified with this plan.

### Description of Used of Substance

Phenol is a component within the binder that is used for the casting operations.

### Description Option(s) to be Implemented

Reduction in the use of binder in core packages. South Core Machine #4 will reduce resins from 1.1% to 0.9%, South Core Machine #1 will reduce resins from 0.9% to 0.85% and South Core Machine #18 will reduce from 0.9% to 0.85% – this will reduce resins the use of Phenols by 0.122 tonnes/year (0.73%) or 0.08kg of phenol per 1 tonne of clean cast produced.

*This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Nematik Windsor Aluminum Plant for Phenol, dated December 17, 2012.*

## ALUMINUM (FUME OR DUST) (CAS NO. 7429-90-5)

### Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan, the Facility intends to reduce or minimize the use or creation of the listed substance wherever possible.

### Objectives

The facility intends to reduce the creation of Aluminum (Fume or Dust) by 1.52% or 0.53 tonnes or 0.03 kg/1 tonne of clean cast by December 31, 2017 provided the reduction aligns with ISO 14001 EMS objectives, business initiatives and products lines. Nematik will strive to meet the expected reductions quantified with this plan.

### Description of Used of Substance

Aluminum dust or fumes are generated during the aluminum casting process.

### Description Option(s) to be Implemented

Reduction in required in-house inventory from 35 days to 11 day inventory. This will reduce the amount of aluminum poured for in-house inventory and reduce the amount of aluminum (fume or dust) created by 0.53 tonnes per year (1.52%) or 0.03 kg of Aluminum (dust or fines) per tonne of clean cast.

*This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Nematik Windsor Aluminum Plant for Aluminum (Fume or Dust), dated December 17, 2012.*

## **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 in its ISO 14001 certified Environmental Management Plan, the Facility intends to reduce or minimize the use or creation of the listed substance wherever possible.

### **Objectives**

The facility intends to reduce the use of Copper by 147 tonnes or 24% (9.5 kg/ 1 tonne of clean cast) by December 31, 2017 provided the reduction aligns with ISO 14001 EMS objectives, business initiatives and products lines. Nematik will strive to meet the expected reductions quantified with this plan.

### **Description of Used of Substance**

Copper is an alloy within the aluminum used for the casting of aluminum parts.

### **Description Option(s) to be Implemented**

- Reduction in the amount of copper within the alloy for Gen I, Gen II and HFV6 products. The new specification reduces the amount of copper alloy from 3.5% to 2.8%. This will result in a reduction of 124 tonnes of copper per year (20%) or 8.4 kg of copper per tonne of clean cast.
- Re-use of aluminum blocks that would traditionally be sent off-site for recycling. This will reduce the amount of copper shipped in by 22 tonnes per year (3.6%) or 1.4 kg of copper per tonne of clean cast.
- Reduction in required in-house inventory from 35 days to 11 day inventory. This will reduce the amount of copper used within the alloy for in-house inventory and reduce the amount of copper used by 0.94 tonnes per year (0.72%) or 0.06 kg of copper per tonne of clean cast.

*This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Nematik Windsor Aluminum Plant for Copper, dated December 17, 2012.*

## LEAD (CAS NO. 7439-92-1)

### Statement of Intent

In accordance with s. 4(1)1 of the Toxics Reduction Act and the Facility commitment to pollution prevention in its ISO 14001 certified Environmental Management Plan, the Facility intends to reduce or minimize the use or creation of the listed substance wherever possible.

### Objectives

The facility intends to reduce the use of Lead by 0.82 tonnes or 4.9% or 0.053 kg/1 tonne of clean cast by December 31, 2017 provided the reduction aligns with ISO 14001 EMS objectives, business initiatives and products lines. Nemak will strive to meet the expected reductions quantified with this plan.

### Description of Used of Substance

Lead is an alloy within the aluminum used for the casting of aluminum parts.

### Description Option(s) to be Implemented

- Re-use of aluminum blocks that would traditionally be sent off-site for recycling. This will reduce the amount of lead shipped in by 0.79 tonnes per year (4.7%) or 0.051 kg per tonne of clean cast.
- Reduction in required in-house inventory from 35 days to 11 day inventory. This will reduce the amount of lead used within the alloy for in-house inventory and reduce the amount of lead used by 0.03 tonnes per year (1.52%) or 0.002 kg of lead per tonne of clean cast.

*This plan summary accurately reflects the Toxic Reduction Plan that has been prepared by RWDI AIR Inc. and Nemak Windsor Aluminum Plant for Lead, dated December 17, 2012.*

## **CERTIFICATION BY HIGHEST RANKING EMPLOYEE**

---

As of December 17, 2012, I, David Goodison, 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>
▪ Phenol (CAS No. 108-95-2) .....	December 17, 2012
▪ Aluminum (Fume or Dust) (CAS No. 7429-90-5) .....	December 17, 2012
▪ Copper (CAS No. 7440-50-8) .....	December 17, 2012
▪ Lead (CAS No. 7439-92-1) .....	December 17, 2012

Original signed copies are retained on-site.

---

David Goodison  
Plant Manager  
Nemak of Canada Corporation

## **CERTIFICATION BY LICENCED PLANNER**

---

As of December 17, 2012, I, Mark Vanderheyden, certify that I am familiar with the processes at Windsor Aluminum 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>
▪ Phenol (CAS No. 108-95-2) .....	December 17, 2012
▪ Aluminum (Fume or Dust) (CAS No. 7429-90-5) .....	December 17, 2012
▪ Copper (CAS No. 7440-50-8) .....	December 17, 2012
▪ Lead (CAS No. 7439-92-1) .....	December 17, 2012

Original signed copies are retained on-site.

---

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