

## TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

This Toxic Substance Reduction Plan Summary has been prepared in accordance with Section 8(2) of the *Toxics Reduction Act* and satisfies the minimum Plan Summary content requirements stipulated in Section 24 of Ontario Regulation (O.Reg.) 455/09.

### Basic Facility Information

Mandatory Basic Facility Information Item	Details
Substance Name and Chemical Abstracts Service (CAS) Registry Number, if any	Cyanides (Ionic) (Per O.Reg.455/09; "no single CAS number applies to this substance")
NPRI and O.Reg.127/01 Identification Numbers	NPRI ID: 1233 O.Reg.127/01 ID: N/A
The legal and trade names of the owner and the operator of the facility, the street address of the facility and the mailing address of the facility, if different	Sudbury INO Onaping Mines/Mill Operations Strathcona Services Building, 85 Regional Road, Onaping, ON P0M 2R0
The number of full time employee equivalents at the facility	860
North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code	21 - Mining & Oil & Gas Extraction 2122 - Metal Ore Mining 212232 – Nickel-Copper Ore Mining
Public contact	Joe Fyfe Superintendent – Environment and SD Management Systems Onaping Mines/Mill Operations Strathcona Services Building, 85 Regional Road, Onaping, ON P0M 2R0
The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum	UTM Zone 17 473367 E 5168770 N

### List of All Substances for which Toxic Substance Reduction Plans Have Been Prepared at the Facility

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Cyanides (Ionic)\*

Propane [CAS number 74-98-6]

Solvent Naphtha Medium Aliphatic [CAS number 64742-88-7]

Arsenic\*

Cadmium\*

Chromium\*

Cobalt\*

Copper\*

Lead\*

Manganese\*

Nickel\*

Selenium\*

Zinc\*

Vanadium [CAS number 7440-62-2]

Sulphuric Acid [CAS number 7664-93-9]

Particulate Matter\*

PM10\*

PM2.5\*

Nitrogen Oxides [CAS number 11104-93-1]

Carbon Monoxide [CAS number 630-08-0]

Ammonia (Total)\*

Nitrate Ion\*

Total Reduced Sulphur\*

I-Butyl Alcohol [CAS number 78-83-1]

Carbon Disulphide [CAS number 75-15-10]

\*Per O.Reg.455/09, "no single CAS numbers apply to these substances"

## **Statement of Intent**

As required by s.4(1) of the TRA, a plan must include either a statement of the facility's intent to reduce the use and/or creation of the Toxic Substance at the facility, or the reasons for not including this statement, as well as objectives of the plan.

A statement of the Facility's intent to reduce use of the Toxic Substance has not been included as a part of this Plan. The Toxic Substance is never created within the Facility's process and therefore no statement with respect to the intent to reduce creation of the Toxic Substance is required.

The Facility is of the opinion that it has previously optimized its use of the Toxic Substance to greatest extent that can reasonably be expected. It should be noted that existing processes and systems in place at the Facility are capable of meeting or exceeding exposure and release limits imposed by applicable occupational and environmental regulations.

## **Objectives of the Toxic Substance Reduction Plan**

The objectives of this Plan are as follows:

- provide support for the Facility's position with respect to the Statement of Intent of this Plan; and

- document how, by preparing this Plan, the Facility has fulfilled the applicable requirements under the TRA and O.Reg.455/09 with respect to the Toxic Substance.

### **Description of Why the Toxic Substance Is Used or Created**

The Toxic Substance is a component of sodium cyanide which is used for separation of nickel and copper in the Facility's ore milling process. Currently no other reagent is known to be as effective as sodium cyanide for this application, and therefore this substance is widely used in ore processing operations the world over. The Toxic Substance is never created at the Facility.

### **Rationale for Not Implementing Toxic Substance Reduction Options**

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have carefully examined each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories at this time.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

### **Statement that the Plan Summary Accurately Reflects the Current Version of the Plan**

As required by s.24(1)8 of O. Reg. 455/09 this Plan Summary accurately reflects the current version of the Plan.

### **Planner License Number**

As required by s.18(2) of O.Reg.455/09 (as amended by s. 9(2) of O.Reg.214/11), the licensed Toxic Substance Reduction Planner responsible for providing planner recommendations on and certification of this plan is as follows:

Russell Polack  
Air Quality Specialist  
Golder Associates Ltd.  
Toxic Substance Reduction Planner License Number TSRP0002

### **Copies of the Certification**

Certification statements are provided in the following pages.

**Toxic Substance Reduction Plans Certification by Highest Ranking Employee**

As required by s.4(2) of the *Toxics Reduction Act* (TRA), Toxic Substance Reduction Plans must contain a certification, signed by the highest ranking employee at the Facility who has management responsibilities relating to the Facility.

The following Certification Statement is being made under s.19(2) of Ontario Regulation (O.Reg.) 455/09 (as amended by s.11 of O.Reg.214/11) and satisfies the requirements of s.4(2) of the TRA for the Toxic Substance Plan for the substance "Cyanides (Ionic)" as of the date of this Certification Statement.

As of (insert date) Nov. 4, 2016, I, ROBERT ROETERINK, certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the *Toxics Reduction Act, 2009* and *Ontario Regulation 455/09 (General)* made under that Act.

- Cyanides (Ionic)

(dated September 7, 2016)

  
Signature

4 Nov, 2016  
Date

ROB ROETERINK  
Print Name

September 7, 2016

Project No. 1547358

John Petherick  
Sudbury Integrated Nickel Operations

**LICENSED TOXIC SUBSTANCE REDUCTION PLANNER CERTIFICATION STATEMENT FOR THE TOXIC  
SUBSTANCE REDUCTION PLAN FOR THE TRA SUBSTANCE CYANIDES (IONIC)  
SUDBURY INTEGRATED NICKEL OPERATIONS ONAPING MINES MILL**

Dear Mr. Petherick:

Golder Associates Ltd. (Golder) was retained by Sudbury Integrated Nickel Operations (Subury INO) Onaping Mines Mill (the Facility) to provide various services pertaining to Toxic Substance Reduction Plan (the Plan) preparation for *Toxics Reduction Act* (TRA) substance referred to as "Cyanides (Ionic)", including Toxic Substance Reduction Planner (Planner) certification.

The following Planner Certification Statement which is made under s.19.1(4) of Ontario Regulation (O.Reg.) 455/09 (as amended by s.11 of O.Reg.214/11) satisfies the Planner Certification requirements for the Plan for the substance Cyanides (Ionic). Furthermore, the following Certification Statement is limited to the version of the Plan which is dated as indicated in below the Certification Statement:

*As of September 7, 2016, I, Russell Polack certify that I am familiar with the processes at the Sudbury Integrated Nickel Operations Onaping Mines Mill facility that use or create the toxic substance 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 plan referred to below for the toxic substance and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.*

- *Cyanides (Ionic) (September 7, 2016)*



Russell Polack  
Toxic Substance Reduction Planner  
License No. TSRP0002  
RLP/NJC/ms

November 9, 2016

Date

