

## 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
<b>Substance Name and Chemical Abstracts Service (CAS) Registry Number for the Substance(s) whose Toxic Substance Reduction Plans are summarized by this Plan Summary</b>	This Plan Summary provides information for Toxic Substance Reduction Plans for the following Substances: Lead (CAS# NA-08), Manganese (CAS# NA-09), Selenium (CAS# NA-12)
<b>National Pollutant Release Inventory (NPRI) and O.Reg.127/01 Identification Numbers</b>	NPRI ID: 3541 O.Reg.127/01 ID: 5103
<b>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</b>	Lehigh Hanson Materials Ltd. – Picton Cement Plant 1370 Highway 49 South Picton, Ontario K0K 2T0
<b>The number of full time employee equivalents at the facility</b>	137
<b>The two- and four-digit North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code</b>	32 – Manufacturing 3273 – Cement and Concrete Product Manufacturing 327310 – Cement Manufacturing
<b>Public contact</b>	Nick Papanicolaou Production Manager 1370 Highway 49 Picton, Ontario, K0K 2T0 Nektarios.Papanicolaou@Lehighhanson.com Phone: (613) 476 - 8636
<b>The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum</b>	330011.27, 4880204.50, Zone 18T
<b>Parent Company Information</b>	Lehigh Hanson North America 300 East John Carpenter Freeway Irving, TX, USA 75062

## **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:

Lead (CAS# NA-08)

Manganese (CAS# NA-09)

Selenium (CAS# NA-12)

### **Statement of Intent**

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

The Toxic Substances have triggered reporting under the TRA and O.Reg.455/09 due to their release into the air when raw materials are heated in a kiln during the process of cement clinker production, and their presence in the final product.

Manganese is naturally present in the granulated slag used as a raw material. Selenium is naturally present in the limestone, gypsum, and cement used as raw materials, and is also present in the coal and coke used as fuel. Lead is present both in the raw materials, as well as the coal and coke used as fuel. Thus, when the raw materials are heated in a kiln during the process of cement clinker production, the Toxic Substances are released as an air emission. Manganese and Selenium are also found in the final product. These activities have been classified as a "use" of the Toxic Substances for the purpose of the required TRA Quantification, Accounting, and Reporting exercise.

The use of the Toxic Substances can only be reduced by reducing the Facility's production, or by using raw materials or an alternative fuel that contains less lead, manganese, or selenium, which both represent economic infeasible options at this time. Therefore, a statement of the Facility's intent to reduce the "use" of the Toxic Substances has not been included as part of the Plans.

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. This is supported by the following aspects:

- Ontario Regulation 419/05, under which a Facility must demonstrate compliance with substance-specific ground-level concentration limits of emitted substances, including substances that are reportable under the NPRI and TRA reporting programs;
- the requirement for any Facility that may discharge any contaminant to the atmosphere to apply for and obtain an Environmental Compliance Approval (ECA) for air which approves the facility's emissions and provides performance limits, documentation requirements and reporting requirements which a Facility must meet in order to maintain compliance with the ECA on an ongoing basis; and
- the requirement to monitor these emissions through routine testing activities (either spot measurements or continuous emission monitoring).

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

The Objectives of the Toxics Reduction Plans are as follows:

- to provide support for the Facility's position with respect to the Statement of Intent of the Plan;
- to provide the reader with an understanding of the nature of the Facility activity which the TRA has defined as a "use" of the Toxic Substances; and
- to document how the Facility has fulfilled the applicable requirements under the TRA and O. Reg. 455/09 with respect to the Toxic Substances covered.

## **Description of Why the Toxic Substances Are Used or Created**

The activity that has been classified as a "use" of the Toxic Substances for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substances is the release of the Toxic Substances into the air when raw materials are heated in a kiln during the process of cement clinker production, and their presence in the final product.

As stated elsewhere in this Plan Summary, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substances is the handling and processing of raw materials (i.e., quarried limestone materials and gypsum) in which the Toxic Substances occur naturally, at typical background concentrations in the region and as a component of a mineral (gypsum). Additionally, the toxic substances are present in the fuels (i.e., coke and coal). Since the Toxic Substances occurs naturally in the raw materials, and the Facility is a quarry and cement producing facility, it is impossible to reduce this "use" of the Toxic Substances without reducing the Facility's cement production. The Toxic Substances simply travel through the Facility process along with all other raw materials without undergoing any significant chemical change. It is impossible for the Toxic Substances to be created within the Facility process, since the Toxic Substances are reportable under the TRA and O.Reg.455/09 as an elemental mass contribution to the material in which they may be a component.

For the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substances, the calculated "release" values have been assumed to be equal to the amount "used". S.12(6) of O. Reg. 455/09 provides considerations for determining the "Best Available Methods" for tracking and quantifying the Toxic Substances. MOE guidance pertaining to this section of O. Reg. 455/09 states that the importance of selecting Best Available Methods is to provide the best decision-making information when determining which toxics reduction options, if any, are worthwhile to implement. It should be noted that, given the Facility's decision to not include a statement of its intent to reduce the "use" of the Toxic Substances (as supported by the information provided in the Statement of Intent section), no decisions will be made with respect to toxics reduction based on the calculated "use" values for the Toxic Substances. Taking this into consideration, the Facility used judgement based on relevance and effort required to obtain information and feels that it has gone to reasonable efforts in identifying and applying the Best Available Methods for quantifications in this case.

A graphical representation of the Facility's "use" and release of the Toxic Substances was completed as part of the Toxic Substances Quantification, Accounting, and Reporting.

## **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 considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

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:

Jamie McEvoy

Toxics Reduction Planner

Golder Associates Ltd.

Toxic Substance Reduction Planner License Number TSRP0288

## **Copies of the Confirmation Statements**

Confirmation statements are provided in the following page.