2014 TOXICS SUBSTANCE REPORT

Holcim (Canada) Inc. – Mississauga Cement Plant

2391 Lakeshore Road West
Mississauga, ON
L5J 1K1

www.holcim.ca

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1. Introduction

Commisioned in 1956, the Holcim Canada Mississauga Plant is one of the largest and most environmentally responsible suppliers of cement in Canada. The Plant employs approximately 185 people and has an annual capacity of 1.5 million tons of cement, plus 0.5 million tons of GranCem. Over the course of the last 59 years, the Mississauga Plant has undertaken ongoing technological advancements designed to meet the increasing needs of the marketplace, to improve environmental performance, to enhance employee safety and to mitigate impacts on the local community.

Holcim (Canada) Inc. is one of the country's largest vertically integrated building materials and construction companies. With 3,000 employees, Holcim (Canada) Inc. manufactures cement, aggregates and ready-mix concrete and provides construction services to many of Canada's largest infrastructure projects.

Holcim (Canada) Inc. is a member of Holcim Group, a Swiss-based multinational with operations in more than 70 countries worldwide. A leading global brand, Holcim is recognized for its long-term financial performance, its environmental leadership, corporate social responsibility and sustainable construction.

2. Reporting Criteria

Section 3(1) of the Toxics Reduction Act (TRA) specifies the criteria requiring the preparation of a toxic substance plan.
These criteria are as follows:

> *3. (1) The owner and the operator of a facility shall ensure that a toxic substance reduction plan is prepared for a toxic substance in accordance with this Act and the regulations if all of the following criteria are met:*
> *1. The facility belongs to a class of facilities prescribed by the regulations.*
> *2. The number of persons employed at the facility exceeds the number of persons prescribed by the regulations.*
> *3. The toxic substance is used or created at the facility and the amounts of the substance that are used or created meet the criteria prescribed by the regulations.*
> *4. Such other criteria as are prescribed by the regulations. 2009, c. 19, s. 3 (1).*

Section 4(1) of O. Reg. 455/09 specifies the types of facilities subject to toxic substance reduction planning and includes facilities that begin in North American Industry Classification System (NAICS) code “31”, “32” or “33” and “212”. Holcim (Canada) Inc. – Mississauga operates under the category of “cement manufacturing”, and therefore has a NAICS code beginning with “32”.

In addition to the plan, toxics substance reporting must be conducted annually and a summary of this report must be made available for public viewing. This document summarizes the toxic substances reported as part of the TRA for the year ending 2014 by Holcim (Canada) Inc’s Mississauga Cement Plant.

- Acenaphthylene
- Acetone
- Ammonia
- Benzene
- Carbon Monoxide
- Dioxins and Furans
- Fluorene
- Hexachlorobenzine
- Hydrochloric Acid
- Mercury
- Methyl Ethyl Ketone
- Nitrogen Oxides (expressed as NO2)
- Particulate Matter
- Particulate Matter <= 10 microns
- Particulate Matter <= 2.5 microns
- Phenanthrene
- Sulphur Dioxide
- Toluene
- Total Volatile Organic Compounds (VOCs)
- Xylene

3. Company Information

Parent Company Name	Holcim (Canada) Inc.
Parent Company Address	2300 Steeles Ave. West, 4th Floor Concord, Ontario L4K 5X6
Facility Name	Holcim (Canada) Inc. - Mississauga
Facility Address	2391 Lakeshore Road West Mississauga, Ontario L5J 1K1
Geographic Coordinates of Facility	43.49720N, -79.62770W
National Pollutant Release Inventory Identification Number	2182
Ontario Regulation 127/01 Identification Number	5112
Two Digit North American Industry Classification System (NAICS) Code	32 – Manufacturing
Four Digit North American Industry Classification System (NAICS) Code	3273 - Cement and Concrete Product Manufacturing
Six Digit North American Industry Classification System (NAICS) Code	327310 - Cement Manufacturing
Number of Full-time Employee Equivalents at the Facility	185
Facility Public Contact	Greg Zilberbrant Environment Manager 2391 Lakeshore Road West Mississauga, ON L5J 1K1 905 822-1653 ext. 4371 greg.zilberbrant@holcim.com

4. Substance Reporting

Acenaphthylene, CAS # 208-96-8				
	2014	**2013**	**Diff (kg)**	**Diff %**
Used	9672 kilograms	1402 kilograms	8270 kilograms	589.87 %
Created	8.2 kilograms	4.7 kilograms	3.5 kilograms	74.47 %
Contained in Product	0.0 kilograms	0.0 kilograms	0.0 kilograms	-
Released	8.2 kilograms	4.7 kilograms	3.5 kilograms	74.47 %
Destroyed	9672 kilograms	1402 kilograms	8270 kilograms	589.87 %
The changes in the quantities of substance used and released are due to: **Used:** Increase in production levels, fluctuations in materials chemistry. **Released:** Increase in production levels, fluctuations in materials chemistry.				

Acetone, CAS # 67-64-1				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	846 tonnes	524 tonnes	322 tonnes	61.45 %
Created	13.8 tonnes	14 tonnes	-0.3 tonnes	-2.13 %
Contained in Product	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
Released	13.8 tonnes	14 tonnes	-0.3 tonnes	-2.13 %
Destroyed	846 tonnes	524 tonnes	322 tonnes	61.45 %
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years) **Released:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years)				

Ammonia, CAS # 16				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	488 tonnes	251 tonnes	237 tonnes	94.42 %
Created	127 tonnes	100 tonnes	27 tonnes	27.0 %
Contained in Product	0 tonnes	0 tonnes	0 tonnes	-
Released	127 tonnes	100 tonnes	27 tonnes	27.0 %
Destroyed	488 tonnes	251 tonnes	488 tonnes	94.42 %
The changes in the quantities of substance used and released are due to: **Used:** increase from material input **Released:** increase from material input				

Benzene, CAS # 71-43-2				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	20 tonnes	18 tonnes	2 tonnes	11.11 %
Created	5.6 tonnes	3.5 tonnes	2.1 tonnes	60.0 %
Contained in Product	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
Released	5.6 tonnes	3.5 tonnes	2.1 tonnes	60.0 %
Destroyed	20 tonnes	18 tonnes	2 tonnes	11.11 %
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years) **Released:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years)				

Carbon Monoxide, CAS # 630-08-0				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	0 tonnes	0 tonnes	0 tonnes	-
Created	1245 tonnes	2780 tonnes	-1535 tonnes	-55.22 %
Contained in Product	0 tonnes	0 tonnes	0 tonnes	-
Released	1245 tonnes	2780 tonnes	-1535 tonnes	-55.22 %
Destroyed	0 tonnes	0 tonnes	0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process conditions **Released:** fluctuation in process conditions				

Dioxins and Furans				
	2014	2013	Diff	Diff %
Used	Below level of quantification	Below level of quantification	-	-
Created	Below level of quantification	Below level of quantification	-	-
Contained in Product	Below level of quantification	Below level of quantification	-	-
Released	Below level of quantification	Below level of quantification	-	-
Destroyed	Below level of quantification	Below level of quantification	-	-
The changes in the quantities of substance used and released are due to: **Used:** No reasons - quantities approximately the same **Released:** No reasons - quantities approximately the same				

Fluorene, CAS # 86-73-7				
	2014	2013	Diff (kg)	Diff %
Used	6007 kilograms	2191 kilograms	3816 kilograms	174.17 %
Created	13.9 kilograms	6.5 kilograms	7.4 kilograms	113.85 %
Contained in Product	0.0 kilograms	0.0 kilograms	0.0 kilograms	-
Released	13.9 kilograms	6.5 kilograms	7.4 kilograms	113.85 %
Destroyed	6007 kilograms	2191 kilograms	3816 kilograms	174.17 %
The changes in the quantities of substance used and released are due to: **Used:** Increase in production levels, fluctuations in material chemistry **Released:** Increase in production levels, fluctuations in material chemistry				

Hexachlorobenzene, CAS # 118-74-1				
	2014	2013	Diff (g)	Diff %
Used	0.0 grams	0.0 grams	0.0 grams	-
Created	31.6 grams	56 grams	-24.3 grams	-43.47 %
Contained in Product	0.0 grams	0.0 grams	0.0 grams	-
Released	31.6 grams	56 grams	-24.3 grams	-43.47 %
Destroyed	0.0 grams	0.0 grams	0.0 grams	-
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process **Released:** fluctuation in process				

Hydrochloric Acid, CAS # 7647-01-0				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
Created	46 tonnes	55 tonnes	-9 tonnes	-16.36 %
Contained in Product	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
Released	46 tonnes	55 tonnes	-9 tonnes	-16.36 %
Destroyed	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** temporary increase in emissions due to process upset from 2013 addressed **Released:** temporary increase in emissions due to process upset from 2013 addressed				

Mercury, CAS # 7439-97-6				
	2014	**2013**	**Diff (kg)**	**Diff %**
Used	37 kilograms	37 kilograms	0 kilograms	0 %
Created	0.0 kilograms	0.0 kilograms	0 kilograms	-
Contained in Product	12 kilograms	19 kilograms	-7 kilograms	-36.84 %
Released	20.1 kilograms	19.4 kilograms	0.7 kilograms	3.61 %
Destroyed	0.0 kilograms	0.0 kilograms	0.0 kilograms	-
The changes in the quantities of substance used and released are due to: **Used:** No reasons - quantities approximately the same **Released:** No reasons - quantities approximately the same				

Methyl Ethyl Ketone, CAS # 78-93-3				
	2014	**2013**	**Diff (-)**	**Diff %**
Used	521 tonnes	Not reported	N/A	N/A
Created	1.4 tonnes	Not reported	N/A	N/A
Contained in Product	0.0 tonnes	Not reported	N/A	N/A
Released	1.4 tonnes	Not reported	N/A	N/A
Destroyed	521 tonnes	Not reported	N/A	N/A
Not reported in 2013 as substance did not meet reporting threshold.				

Nitrogen oxides (expressed as NO2), CAS # 11104-93-1				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	0 tonnes	0 tonnes	0 tonnes	-
Created	2334 tonnes	2034 tonnes	300 tonnes	14.75 %
Contained in Product	0 tonnes	0 tonnes	0 tonnes	-
Released	2334 tonnes	2034 tonnes	300 tonnes	14.75 %
Destroyed	0 tonnes	0 tonnes	0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** No reasons - quantities approximately the same **Released:** No reasons - quantities approximately the same				

Particulate Matter – Total (PM), CAS # M08				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	76534 tonnes	66431 tonnes	10103 tonnes	15.21 %
Created	0 tonnes	0 tonnes	0 tonnes	-
Contained in Product	N/A *	N/A *	-	-
Released	111 tonnes	121 tonnes	-10 tonnes	-8.26 %
Destroyed	0 tonnes	0 tonnes	0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** reduction in material storage and movement **Released:** reduction in material storage and movement				

Particulate Matter <= 10 Microns (PM10), CAS # M09				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	21233 tonnes	23640 tonnes	-2407 tonnes	-10.18 %
Created	0 tonnes	0 tonnes	0 tonnes	-
Contained in Product	N/A *	N/A *	-	-
Released	40 tonnes	49 tonnes	-9 tonnes	-18.37 %
Destroyed	0 tonnes	0 tonnes	0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** reduction in material storage and movement **Released:** reduction in material storage and movement				

Particulate Matter <= 2.5 Microns (PM2.5), CAS # M10				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	6541 tonnes	7308 tonnes	-767 tonnes	-10.50 %
Created	0 tonnes	0 tonnes	0 tonnes	-
Contained in Product	N/A *	N/A *	-	-
Released	23 tonnes	26 tonnes	-3 tonnes	-11.54 %
Destroyed	0 tonnes	0 tonnes	0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** reduction in material storage and movement **Released:** reduction in material storage and movement				

*Quantification for the amount of the substance that is contained in product is not required for Criteria Air Contaminants (Part 4 of NPRI Schedule 1).

Phenanthrene, CAS # 85-01-8				
	2014	**2013**	**Diff (kg)**	**Diff %**
Used	11959 kilograms	4396 kilograms	7563 kilograms	172.04 %
Created	48 kilograms	26 kilograms	22.1 kilograms	85.33 %
Contained in Product	0.0 kilograms	0.0 kilograms	0.0 kilograms	-
Released	48 kilograms	26 kilograms	22.1 kilograms	85.33 %
Destroyed	11959 kilograms	4396 kilograms	7563 kilograms	172.04 %
The changes in the quantities of substance used and released are due to: **Used:** Increase in production levels, fluctuation in materials chemistry **Released:** Increase in production levels, fluctuation in materials chemistry				

Sulphur dioxide, CAS # 7446-09-5				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	0 tonnes	0 tonnes	0 tonnes	-
Created	1382 tonnes	2138 tonnes	-756 tonnes	-35.36 %
Contained in Product	0 tonnes	0 tonnes	0 tonnes	-
Released	1382 tonnes	2138 tonnes	-756 tonnes	-35.36 %
Destroyed	0 tonnes	0 tonnes	0 tonnes	-
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process conditions **Released:** fluctuation in process conditions				

Toluene, CAS # 108-88-3				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	3278 tonnes	1990 tonnes	1288 tonnes	+64.72 %
Created	3.2 tonnes	4.4 tonnes	1.2 tonnes	- 27.27 %
Contained in Product	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
Released	3.2 tonnes	4.4 tonnes	1.2 tonnes	- 27.27 %
Destroyed	3278 tonnes	1990 tonnes	1288 tonnes	+64.72 %
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years) **Released:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years)				

Total VOCs (Volatile Organic Compounds)				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	9970 tonnes	6230 tonnes	3740 tonnes	60.0 %
Created	17.7 tonnes	16 tonnes	1.7 tonnes	10.63 %
Contained in Product	0 tonnes	0.00 tonnes	0 tonnes	-
Released	17.7 tonnes	16 tonnes	1.7 tonnes	10.63 %
Destroyed	9970 tonnes	6230 tonnes	3740 tonnes	60.0 %
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years) **Released:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years)				

Xylene, CAS # 1330-20-7				
	2014	**2013**	**Diff (tonnes)**	**Diff %**
Used	2751 tonnes	1791 tonnes	960 tonnes	53.60 %
Created	1.6 tonnes	1.5 tonnes	0.1 tonnes	6.67 %
Contained in Product	0.0 tonnes	0.0 tonnes	0.0 tonnes	-
Released	1.6 tonnes	1.5 tonnes	0.1 tonnes	6.67 %
Destroyed	2751 tonnes	1791 tonnes	960 tonnes	53.60 %
The changes in the quantities of substance used and released are due to: **Used:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years) **Released:** fluctuation in process resulting in change to specific VOC creation (total VOCs in line with previous years)				