Summary

Summary

Chemical Name and CAS#:

PM - Total Particulate Matter	(NA - M08)
PM10 - Particulate Matter <= 10 Microns	(NA - M09)
PM2 5 - Particulate Matter <= 2 5 Microns	(NA - M10)

NPRI Identification Number:	635
O.Reg. 127/01 Number:	10100
Company Name:	Hanson Brick Ltd
Company Address:	5155 Dundas St Burlington ON L7R3Y2
Number of employees:	200
Two Digit NAICS Code:	32
Four Digit NAICS Code:	3279
Six Digit NAICS Code:	32 7990
Public Contact:	
Name:	Shane Egan
Address:	5155 Dundas St Burlington ON L7R2Y2
Phone Number:	905.335.7204
Fax Number:	905.335.3401
E-mail:	shane.egan@hanson com
UTM Spatial Coordinates (NAD83):	
Latitude:	43.414317°
Longitude:	-79.805937°
Datum:	
UTM:	17 E596677 N4807518

Statement of Intent: Particulate matter is created in 6 processes on the Hanson Burlington site PM 10 and PM 2.5 will be addressed as a subset of the PM PM 10 is set by emission factor as 85% of PM. PM 2.5

is set by emission factor as 11% of PM 10. This plan will address these compounds

There are 11 listed substances that require a Toxic Substance Reduction Plan at Hanson Brick Ltd. They are listed below in groups that are results of common pathway through the manufacturing operations. Each substance will be accounted for in its group This plan addresses Group 3. All information in the report referring to Particulate Matter (PM) is also referring to PM 10 and PM 2.5. The compounds are accounted for separately.

Group 1

Calcium fluoride	(7789-75-5)
Hydrochloric acid	(7647-01-0)
Hydrogen fluoride	(7664-39-3)
Sulphur dioxide	(7446-09-5)

Group 2

Manganese (and its compounds)	(NA - 09)
Zinc (and its compounds)	(NA - 14)

Group 3

PM - Total Particulate Matter	**(NA - M08)**
PM10 - Particulate Matter <= 10 Microns	**(NA - M09)**
PM2.5 - Particulate Matter <= 2.5 Microns	**(NA - M10)**

Group 4

Nitrogen oxides (expressed as NO2)	(11104-93-1)
Carbon monoxide	(630-08-0)

Reason for Use:	In the process of manufacturing clay brick particulate matter is created during the preparation of the raw material and during the drying and firing of the brick.
Target:	Hanson Brick Ltd. will increase the inspection of its dust collection units as a means to minimize incidents of filter media failure and subsequent leakage.
Objective:	Hanson Brick Ltd will continue to operate the plants in full compliance with Environmental Standards and ECA-Air issued in 2012. This plan will determine the technical and economic feasibility of options to reduce the emissions and recover the compound

Certification: Highest Ranking Employee

As of December 20, 2013, I, Shane Egan, 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

PM - Total Particulate Matter	(NA - M08)
PM10 - Particulate Matter <= 10 Microns	(NA - M09)
PM2 5 - Particulate Matter <= 2 5 Microns	(NA - M10)

9-July 14

Shane Egan — Date
Title V.P. Operations
Hanson Brick Ltd

Certification: Planner

As of December 20, 2013, I, John Hewitt certify that I am familiar with the processes at Hanson Brick Ltd. 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 plan dated [insert version date] and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

PM - Total Particulate Matter	(NA - M08)
PM10 - Particulate Matter <= 10 Microns	(NA - M09)
PM2 5 - Particulate Matter <= 2 5 Microns	(NA - M10)

July 10 2014

John Hewitt — Date
Projects and Environmental Manager
Hanson Brick Ltd
Planner License No.: TSRP1037
Jack.hewitt@hanson com

Options to Be Implemented

OPTION	CATEGORY	REDUCTION	IMPLEMENTATION
The materials used in the dust collector filters could be upgraded to get improved separation	Equipment or Process Modification	Marginal	Dec-14
Some failures of filter media could be anticipated and avoided with the installation of particulate detection in the exhaust flow from dust collectors	Spill and Leak Prevention	45.9kilograms per failed filter cartridge	Dec-15
Increase the frequency of plant inspections of dust collectors	Spill and Leak Prevention	45.9kilograms per failed filter cartridge	Dec-14