

Toxic Substance Reduction Plan

Summary

**Niagara Energy Products
4749 Buttrey St.
Niagara Falls, ON
L2E 7K7**

Toxic Substance Reduction Plan for 2014

Plan Summary Statement

This plan summary reflects the content of the toxic substance reduction plan for Particulate Matter $\leq 2.5 \mu\text{m}$, prepared for Niagara Energy Products, dated August 4th, 2017.

Facility Information

Facility Name		Niagara Energy Products	
NPRI Identification Number		10887	
Number of Full-time Employees		46	
NAICS Code			
Two Digit:	33	Four Digit:	3329
		Six Digit:	33332999
UTM Spatial Coordinates			
UTM Spatial Coordinates		Datum	
Easting:	656844m	NAD83	
Northing:	4775119m		

Facility Operator Information

Name	Gabriel Bonenfant
Phone Number	905-371-2500 Ex. 227
Fax Number	905-371-2235
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Address	4749 Buttrey St., Niagara Falls, ON L2E 7K7

Public / Technical Contact

	Public Contact / Person Coordinating the Preparation of the Plan	Technical Contact / Person Who Prepared the Plan
Name	Gabriel Bonenfant	Fil Barillaro P.Eng. QP & Robert Wade B.A.Sc
Position	Vice-President & General Manager	Plan Preparers
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Parent Company Information

The Facility is owned by two holding companies: 2231409 Ontario Limited, located at 7-b Pleasant Blvd., Suite 1138, Toronto, ON and 2231435 Ontario Limited, located at 40 Jennet Street, Fort Erie, ON.

Toxic Substance for Which Facility Must Prepare A Plan & Description of Substance:

- *(covered by this plan):* Particulate Matter $\leq 2.5 \mu\text{m}$ (PM_{2.5}), CAS: N/A

Niagara Energy Products (NEP) manufactures Dry Storage Containers (DSC) for the purpose of safely containing and storing spent nuclear fuel. Processes at the Facility include aggregate receiving, cement unloading into silos, concrete batching, metal working, grinding, welding, shot blasting, and spray painting operations.

Statement of Intent and Objective of the Plan

PM_{2.5} is created during various operations at the Niagara Energy Products (NEP) facility located at 4749 Buttrey Street, Niagara Falls, ON (Facility). NEP intends to reduce the creation of this toxic substance at the Facility. Since the Facility does not use the above toxic substance, this plan will not address reducing its use.

NEP prides itself on technological innovation in order to produce high quality products in an environmentally responsible manner. NEP will strive to reduce the creation and release of PM_{2.5}.

The creation and release of PM_{2.5} is accounted for through engineering and mass balance calculations, which are based on Facility purchasing and individual processes / operations. Facility-wide amounts of PM_{2.5}, for which this report has been prepared, are presented below:

- Creation of PM_{2.5}: 2.63 MT
- Purchase / Use of PM_{2.5}: 0 MT
- Disposal / Transfer of PM_{2.5}: 0 MT
- On Site Air Releases of PM_{2.5}: 0.55 MT

Toxic Substance Reduction Options to be Implemented

To reduce the creation and air release of PM_{2.5} from the Facility, NEP plans to implement the two options detailed below. Since the implementation of these options is expensive to NEP, it is beneficial to implement them in stages.

Toxic Substance Reduction Plan for 2014

Category 3 – Equipment or Process Modifications; Time Table for Implementation

Step	Description	Estimated Timeline	Estimated Reduction in Air Release (MT/yr)
1	Upgrading Emission Control Equipment	2-4 years	0.37
2	Acquiring High Efficiency Spray Guns	1-2 years	0.02

Step 1: NEP intends to upgrade the efficiency rating of all equipment related to the cement silo, welding, grinding, and oxy-fuel cutting processes. As these facilities are currently in use, it is not possible to make a quick transition from the current equipment to the new, higher efficiency models. As this is the case, NEP intends to switch out equipment as it is able.

Step 2: NEP intends to replace existing spray guns at the Facility with newer, higher efficiency spray guns as the old guns wear out.

The table below provides a summary of the expected creation and release of PM_{2.5} before and after the implementation of the selected reduction options.

Summary – Facility Level Quantifications for PM_{2.5}

Form of Involvement	Amount of PM _{2.5} (MT/yr)	Amount of PM _{2.5} (MT/yr) After Reduction
Enters the Facility	0	0
Created at the Facility	2.63	2.18
Released (air) from the Facility	0.55	0.08
Destroyed at the Facility	2.09	2.1

Toxic Substance Reduction Plan for 2014

Plan Confirmation

As of August 4th, 2017, I, Gabriel Bonenfant, confirm that I have read the toxic substance reduction plan for the toxic substances referred below and I am familiar with its contents. 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 with the exclusion of the Regulatory deadline.

- **Particulate Matter $\leq 2.5 \mu\text{m}$, CAS Number: N/A**



Gabriel Bonenfant
Vice President & General Manager
Niagara Energy Products

August 11, 2017.

Date

As of August 4th, 2017, I, Fil Barillaro confirm that I am familiar with the processes at Niagara Energy Products that use 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 August, 2017 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act with the exclusion of the Regulatory deadline.

- **Particulate Matter $\leq 2.5 \mu\text{m}$, CAS Number: N/A**



Fil Barillaro, M.A.Sc., P.Eng., QP
Principal, Oakhill Environmental Inc.
Toxic Substance Reduction Planner
Certification Number: TSRP0233

August 11, 2017

Date