2013 Toxic Substances Plan Summary
Reporting Under Phase II of the Toxics Reduction Act, 2009
and O. Reg. 450/09

December 23, 2013
2013 Toxic Substances Plan
Phase II
Reporting Under Toxics Reduction Act, 2009 and O. Reg. 455/09

This Report is for Public Release

All inquiries regarding this report should be forwarded to the following:

Plant Manager
ERCO Worldwide, A division of Superior Plus LP
2001 Neebing Avenue, P.O. Box 10464
Thunder Bay, ON, P7B 6T9
(807) 623-7632
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Section 1: General Information

Broadway Avenue Plant Information

Street Address:

ERCO Worldwide, A division of Superior Plus LP
Broadway Avenue Plant
2001 Neebing Avenue
Thunder Bay, ON
P7E 6S3

Mailing Address:

ERCO Worldwide, A division of Superior Plus LP
Broadway Avenue Plant
2001 Neebing Avenue, PO Box 10464
Thunder Bay, ON
P7B 6T9

NPRI ID: 11144
D&B D-U-N-S Number: 25-327-7073
Federal Business Number: 840149926
Full Time Employees: 21

NAICS 2, 4, and 6 digit codes: 31-33, 3251, 325189

UTM Coordinates: 329150 m East, 5358340 m North
Zone: 16

Legal name of Canadian parent company, if your facility is a subsidiary of a Canadian parent company: Superior Plus
Address: 1400, 840 – 7 Avenue SW Calgary, Alberta T2P 3G2

Percent Ownership: 99.90%
Report Contact Information

The Certifying and Public Contact for this report is as follows:

**David Birch**  
Plant Manager  
ERCO Worldwide, A division of Superior Plus LP  
2001 Neebing Avenue, P.O. Box 10464  
Thunder Bay, ON, P7B 6T9  
(807) 623-7632

The Technical Contact for this report is as follows:

**Carl Taylor**  
Technical & Environmental Manager  
ERCO Worldwide, A division of Superior Plus LP  
2001 Neebing Avenue, P.O. Box 10464  
Thunder Bay, ON, P7B 6T9  
(807) 623-7632

The following licensed TRA Planner reviewed the plan, provided recommendations, and certified the plan meets the requirements of the Act and that the Plan Summary accurately reflects the plan:

**Carl Taylor**  
Technical & Environmental Manager  
ERCO Worldwide, A division of Superior Plus LP  
2001 Neebing Avenue, P.O. Box 10464  
Thunder Bay, ON, P7B 6T9  
(807) 623-7632  
License: **TSRP0173**  
Expiry: 6/30/2017

Prescribed Toxic Substances on Site

The onsite toxic substances that are included in the Phase II Toxics Reduction Act (O. Reg. 455/09) for this TRA Plan include:

1. Chlorine Dioxide (CAS 10049-04-4)

A plan for Phase I substances has been previously created for the following in December 2012.

2. Sulphuric Acid (CAS 7664-93-9)  
3. Chlorine (CAS 7782-50-5)

To quantify these substances under the Act, ERCO utilized facility wide amounts used, created, as well as amounts released, disposed of and transferred.
Toxics Reduction Act Plan Objectives

ERCO Worldwide, in compliance with the Toxics Reduction Act (2009) and O. Reg. 455/09, was to complete the following objectives in the creation of this Toxic Substance Reduction Plan:

1. Evaluate the direct and indirect costs associated with the use and/or creation of sulphuric acid and chlorine at the plant site.
2. Identify and evaluate potential options to reduce the use and/or creation of chlorine and sulphuric acid.
3. Evaluate identified options to determine if they are both technically and economically feasible to proceed.
4. Evaluate potential toxics reductions and implementation plans for identified options that are both technically and economically feasible.

Section 2: Toxic Substance – Chlorine Dioxide

Chlorine Dioxide in the R11 Sodium Chlorite Manufacturing Operation

Chlorine dioxide is created in the R11 process through the reaction of sodium chlorate and sulphuric acid in the presence of hydrogen peroxide as the reducing agent.

\[ 2\text{NaClO}_3 + \text{H}_2\text{SO}_4 + \text{NaCl} \rightarrow \text{ClO}_2 + \frac{1}{2} \text{Cl}_2 + \text{Na}_2\text{SO}_4 + \text{H}_2\text{O} \]

Sodium Chlorate + Sulphuric Acid + Sodium Chloride → Chlorine Dioxide + Chlorine + Sodium Sulphate + Water

NOTE: Refer to the 2012 Ontario Toxics Substances Accounting Report for the amounts of chlorine dioxide used, created, disposed, and transferred.

Chlorine Dioxide: Statement of Intent and Objectives

ERCO Worldwide does not purchase nor transport chlorine dioxide to its facility and therefore does not use this substance as defined by O. Reg. 455/09. As such, ERCO Worldwide has no intent to reduce the use of this substance at its facility.

ERCO Worldwide, in compliance with the Toxics Reduction Act (2009) and O. Reg. 455/09, intends to reduce the creation of chlorine dioxide where it is deemed to be technically and economically feasible to do so.

Chlorine Dioxide: Reduction Option Evaluation

The plant site environmental stewardship team participated in the review of toxic reduction options for chlorine dioxide. Although the review team determined that one potential option existed, it was deemed not economically feasible for implementation.
Appendix A: Certifications and Submission Receipt

Certification by Highest Ranking Employee

As of December 23, 2013, I David Birch, certify that I have read the toxic substance reduction plans for the toxic substance contained in this plan (chlorine dioxide) 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.

Signature

Certification by Toxic Substance Reduction Planner

As of December 23, 2013, I Carl Taylor (TSRP0173) certify that I am familiar with the processes at the ERCO Worldwide Thunder Bay Facility that uses or creates the toxic substances contained in this plan (chlorine dioxide), 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 (December 23, 2013) and that the plan complies with that act and Ontario Regulation 455/09 (General) made under that act.

Signature
Confirmation de soumission

Carl Taylor,

Le but de ce courriel est de vous informer que la déclaration suivante a été soumise avec succès dans le Guichet unique d’Environnement Canada:

Période de déclaration: 2012
Type de déclaration: Sommaire du plan
Nom de la compagnie: ERCO Worldwide, A division of Superior Plus LP
Nom de l'installation: Broadway Avenue Plant
Adresse de l'installation: 2001 Neefing Avenue, Thunder Bay (Ontario)
Date et temps de soumission: 23/12/2013 11:30:02 AM

Pour visualiser ou mettre à jour la déclaration, veuillez vous connecter au Guichet unique d'Environnement Canada (https://ec.ss.ec.gc.ca).

Confirmation of Submission

Carl Taylor,

The purpose of this email is to notify you that the following report has been successfully submitted into Environment Canada’s Single Window reporting system:

Reporting Period: 2012
Report Type: Plan Summary
Company Name: ERCO Worldwide, A division of Superior Plus LP
Facility Name: Broadway Avenue Plant
Facility location: 2001 Neefing Avenue, Thunder Bay (Ontario)
Submitted Date and Time: 23/12/2013 11:30:02 AM

To view or update the report, please log in to Environment Canada’s Single Window (https://ec.ss.ec.gc.ca).