

Haddon,David [CEAA]

Subject: FW: NPRI 2013 submission and calculations for WWMF

From: SWAMI Laurie -NUCLEAR <email removed>
Sent: Wednesday, September 17, 2014 07:09 PM
To: Myles,Debra [CEAA]; McGee, Kelly: CNSC
Subject: Fw: NPRI 2013 submission and calculations for WWMF

Attached are the NPRI reports.

Sent from my BlackBerry 10 smartphone on the Bell network.

From: MORTON Lise -NUCLEAR <email removed >
Sent: Wednesday, 17 September 2014 6:55 PM
To: SWAMI Laurie -NUCLEAR
Subject: NPRI 2013 submission and calculations for WWMF

Please find attached the NPRI submission and calculations for the WWMF for 2013.

Thank you.

Lise Morton

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W-CORR-07297.1-

KING Nilofar -NUCLEAR

0501707 T07

From: i<email removed>
Sent: Friday, May 23, 2014 1:55 PM
To: KING Nilofar -NUCLEAR
Subject: INRP - Confirmation de soumission - [2013] / NPRI – Confirmation of Submission – [2013]



Confirmation de soumission

Confirmation of Submission

Nelly King,

Nelly King,

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:

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:

Période de déclaration: 2013
Programme: INRP
Type de déclaration: Inventaire
Nom de la compagnie: Ontario Power Generation Inc.
Nom de l'installation: Western Waste Management Facility
Adresse de l'installation: 177 Tie Road, Tiverton (Ontario)
Date et temps de soumission: 23/05/2014 1:55:16 PM

Reporting Period: 2013
Program: NPRI
Report Type: Inventory
Company Name: Ontario Power Generation Inc.
Facility Name: Western Waste Management Facility
Facility location: 177 Tie Road, Tiverton (Ontario)
Submitted Date and Time: 23/05/2014 1:55:16 PM

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

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

Canada.gc.ca (<http://www.canada.gc.ca/home.html>)

Services (<http://www.servicecanada.gc.ca/eng/home.shtml>)

Departments (<http://www.canada.gc.ca/aboutgov-ausujetgouv/depts/menu-eng.html>)

Français

National Pollutant Release Inventory (NPRI) and Partners

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[SWIM](https://ec.ss.ec.gc.ca/auth/en/Services) (<https://ec.ss.ec.gc.ca/auth/en/Services>) | [2013](#) (L) | [Ontario Power Generation Inc.](#) (L) | [Western Waste Management Facility](#) (L) | [Report Preview](#)

* indicates a required field, ** indicates a conditionally required field

Report Preview

Company Details

Name

Ontario Power Generation Inc.

Address

700 University Avenue, Toronto (Ontario)

Report Details

Report Status

Submitted

2013

Report Type

Inventory

Facility Name

Western Waste Management Facility

Facility Address

177 Tie Road, Tiverton (Ontario)

Update Comments

Activity Details

Applicable Programs

Please select all that apply.

Environment Canada Programs

NPRI - National Pollutant Release Inventory

Partnering Programs

ON MOE TRA - Ontario Ministry of the Environment for the Toxic Reductions Act

ON MOE Reg. 127/01 - Ontario Ministry of the Environment for the Airborne Contaminant Discharge Monitoring and Reporting Regulation

NERM - Chemistry Industry Association of Canada for the National Emission Reduction Masterplan survey

NFPRER - National Framework for Petroleum Refinery Emission Reductions

Contacts

Select the appropriate person from the drop-down menu for each contact.

Facility Contacts

Select the appropriate person from the drop-down menu for each contact.

Technical Contact: *

Nelly King

Certifying Official (or authorized delegate): *

Lise Morton

Company Coordinator (optional)

Public Contact (optional)

Contractor Contact (optional)

If you are an independent contractor or consultant, please enter your company name in the field below

Employees and Activities

Employees

Number of Employees *

175

Activities

If your facility was engaged in any of the following activities, check the relevant box(es), otherwise click "None of the Above". For the second "Activities" list, if you select one of these activities then you must report dioxins, furans and hexachlorobenzene.

Activities for Which the 20,000-Hour Employee Threshold Does Not Apply: (check all that apply) *

Hazardous waste incineration

Activities Relevant to Reporting Dioxins, Furans and Hexachlorobenzene: (check all that apply) *

Hazardous waste incineration

Activities Relevant to Reporting of Polycyclic Aromatic Hydrocarbons (PAHs)

Did the following activity take place at the facility?

Wood preservation using creosote: *

No

General Facility Information

NPRI

Is this the first time the facility is reporting to the NPRI (under current or past ownership)? *

No

Is the facility controlled by another Canadian company or companies? *

No

Did the facility report under other environmental regulations or permits? *

Yes

Is the facility required to report one or more NPRI Part 4 substances (Criteria Air Contaminants)? *

No

If 'Yes' to reporting for one or more Part 4 substances:

Was the facility shut down for more than one week during the year? **

Operating Schedule - Days of the Week **

Mon	Tue	Wed	Thu	Fri	Sat	Sun
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Operating Schedule - Hours **

Usual Number of Operating Hours per day Usual Daily Start Time (24h) (hh:mm)

--	--

Shutdown Periods **

To report a shutdown period, click the "+" sign to the right side of the screen.

Empty

General Comments for Facility

Comments

Verify Facility Information

Company Information

Company Details

Company Legal Name

Ontario Power Generation Inc.

Business Number

878664226

Mailing Address

Delivery Mode

General Delivery

PO Box

--

Rural Route Number

--

Address Line 1

H9 E12 - 700 University Avenue

City *

Toronto

Province/Territory **

Ontario

Postal Code: **

M5G1X6

Country *

Canada

Facility Information

Facility *

Western Waste Management Facility

NAICS Code *

562210

NPRI ID *

7098 (Assigned by Environment Canada)

Facility Physical Address

Address Line 1

177 Tie Road

City

Tiverton

Province/Territory

Ontario

Postal Code

N0G2T0

Country

Canada

Additional Information

Land Survey Description

--

National Topographical Description

--

Geographical Address

Latitude ** 44.32100
 Longitude ** -81.58630
 UTM Zone **
 UTM Easting **
 UTM Northing **

Facility Contacts

Contact Types

Technical Contact

First Name: * Nelly
 Last Name: * King
 Position: * Permits and Approvals Coordinator
 Telephone: * 5193616414
 Ext 3054
 Fax
 Email: * <email removed>

Mailing Address

Delivery Mode Post Office Box
 PO Box 7000
 Rural Route Number
 Address Line 1 177 Tie Road
 City * Tiverton
 Province/Territory ** Ontario
 Postal Code: ** N0G2T0
 Country * Canada

Certifying Official

First Name: * Lise
 Last Name: * Morton
 Position: * Director, L&IL Waste
 Telephone: * 5193681671
 Ext
 Fax 5193681642
 Email: * <email removed>

Mailing Address

Delivery Mode Post Office Box

PO Box

7000

Rural Route Number

Address Line 1

177 Tie Road

City *

Tiverton

Province/Territory **

Ontario

Postal Code: **

N0G2T0

Country *

Canada

Environmental Regulations or Permits

Permits

8047-8GLPAM

Number or Permit Number

8047-8GLPAM

Government Department, Agency, or Program Name

Ontario Ministry of the Environment Certificate of Approval Air

Pollution Prevention

Pollution Prevention Plans

Does the facility have a documented pollution prevention plan? *

No

If 'Yes'

a) Please check all that apply

b) Did the facility update their plan in the current reporting year?

No

c) Does the plan address substances, energy conservation, or water conservation?

Comments **

Pollution Prevention Activities

Did the facility complete any pollution prevention activities in the current NPRI reporting year? *

No

Selecting "Yes" will initiate the reporting of the specific pollution prevention activities that were completed in the current reporting year on the following screen.

Substance Details

118-74-1, Hexachlorobenzene

118-74-1, Hexachlorobenzene

Substance Reporting Status

Applicable Programs

NPRI - Does this substance meet the criteria specified in the Canada Gazette notice? Selecting "No" indicates voluntary reporting of this substance to the NPRI. *

Yes

Comments

General Information about the Substance

Releases and Transfers of the Substance

Releases and Transfers of the Substance

Was the substance released on-site? *

Yes

Disposals and Off-site Transfers for Recycling

Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal? *

No

Is the facility required to report on disposals of tailings and waste rock for the selected reporting period? *

No

Was the substance transferred off-site for recycling? *

No

Indicate if there were On-site Releases, Disposals or Off-site Transfers to the environment by choosing Yes or No from the drop-down boxes beside the questions below.

Nature of Activities *

Indicate whether the substance was manufactured, processed, or otherwise used, by selecting the nature of such activities.

Manufacture the Substance

Process the Substance

Otherwise Use of the Substance

As a by-product

On-site Releases

Click "Edit" to enter your reportable values.
In order to calculate totals, you must click the "Validate" button.

Enter the values for releases to air for the substance

Releases to Air

Category	Basis Of Estimate	Detail Code	Quantity (Grams)
Stack or Point Releases	M3 - Source Testing	BQ - Below LoQ (Quantity Entered)	0.0166
Storage or Handling Releases	NA - Not Applicable		
Fugitive Releases	NA - Not Applicable		
Spills	NA - Not Applicable		
Other Non-point Releases	NA - Not Applicable		
Total - Releases to Air			0.0166

Enter the values for releases to water bodies

Releases to Water Bodies

Category	Basis Of Estimate	Detail Code	Quantity (Grams)
Direct Discharges	NA - Not Applicable		
Spills	NA - Not Applicable		

Leaks NA - Not Applicable

Total - Releases to Water Bodies

Enter the values for releases to land

Releases to Land

Category	Basis Of Estimate	Detail Code	Quantity (Grams)
Spills	NA - Not Applicable		
Leaks	NA - Not Applicable		
Other	NA - Not Applicable		

Total - Releases to Land

Total Quantity Released

0.0166

Breakdown of Annual Releases

Distribute Equally

Quarterly Breakdown *

Jan - Mar %	Apr - Jun %	Jul - Sep %	Oct - Dec %
25	25	25	25
Total %			
100			

Reasons for Changes in Quantities Released from Previous Year

Select the applicable reason or reasons *

Changes in production levels

Comments ? (On-Site Releases)

Disposals

Reasons for Changes in Quantities Disposed from Previous Year

Select the applicable reason or reasons.

No significant change (i.e. < 10%) or no change

Comments? (Disposals)

Recycling

Reasons for Changes in Quantities Recycled from Previous Year

Select the applicable reason or reasons *

No significant change (i.e. < 10%) or no change

Comments? (Recycling)

NA - D/F, Dioxins and furans - total

NA - D/F, Dioxins and furans - total

Substance Reporting Status

Applicable Programs

NPRI - Does this substance meet the criteria specified in the Canada Gazette notice? Selecting "No" indicates voluntary reporting of this substance to the NPRI. *

Yes

Comments

General Information about the Substance

Releases and Transfers of the Substance

Releases and Transfers of the Substance

Was the substance released on-site? *

Yes

Disposals and Off-site Transfers for Recycling

Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal? *

No

Is the facility required to report on disposals of tailings and waste rock for the selected reporting period? *

No

Was the substance transferred off-site for recycling? *

No

Indicate if there were On-site Releases, Disposals or Off-site Transfers to the environment by choosing Yes or No from the drop-down boxes beside the questions below.

Nature of Activities *

Indicate whether the substance was manufactured, processed, or otherwise used, by selecting the nature of such activities.

Manufacture the Substance

Process the Substance

Otherwise Use of the Substance

As a by-product

On-site Releases

Click "Edit" to enter your reportable values.

In order to calculate totals, you must click the "Validate" button.

Enter the values for releases to air for the substance

Releases to Air

Category	Basis Of Estimate	Detail Code	Quantity (g TEQ(ET))
Stack or Point Releases	M3 - Source Testing	BQ - Below LoQ (Quantity Entered)	0.0000
Storage or Handling Releases	NA - Not Applicable		
Fugitive Releases	NA - Not Applicable		
Spills	NA - Not Applicable		
Other Non-point Releases	NA - Not Applicable		
Total - Releases to Air			0.0000

Dioxins and Furans Breakdown

Dioxins and Furans Breakdown

Basis of Estimate for Dioxins and Furans

Enter breakdown values for

Stack or Point Releases

Basis Of Estimate

M3 - Source Testing

Detail Code

BQ - Below LoQ (Quantity Entered)

Dioxins and Furans Breakdown Substance List

CAS Number	Substance Name	Quantity (Grams)	Quantity (g TEQ(ET))
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.0001	0.000001
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.0000	0.000000
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.0000	0.000000
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.0000	0.000000
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.0000	0.000000
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.0000	0.000000
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.0000	0.000000
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.0000	0.000000
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.0000	0.000000
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.0000	0.000000
3268-87-9	Octachlorodibenzo-p-dioxin	0.0001	0.000000
39001-02-0	Octachlorodibenzofuran	0.0000	0.000000
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.0000	0.000000
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.0000	0.000000
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.0000	0.000000
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.0000	0.000000
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.0000	0.000000

Total of D/F congeners (from above) (g TEQ(ET))

0.0000

Total of D/Fs (only if no information on D/F congeners) (g TEQ(ET))

Note: If no information on speciated dioxin and furan substances is available, you may report a total for dioxins and furans in the field "Total D/Fs (g TEQ(ET))", as shown above, instead of entering the quantities for the speciated substances.

For ON MOE TRA, facilities must provide information on individual dioxin and furan congeners using the best available method(s) for the facility.

Enter the values for releases to water bodies

Releases to Water Bodies

Category	Basis Of Estimate	Detail Code	Quantity (g TEQ(ET))
Direct Discharges	NA - Not Applicable		

Spills	NA - Not Applicable	
Leaks	NA - Not Applicable	
Total - Releases to Water Bodies		

Enter the values for releases to land

Releases to Land

Category	Basis Of Estimate	Detail Code	Quantity (g TEQ(ET))
Spills	NA - Not Applicable		
Leaks	NA - Not Applicable		
Other	NA - Not Applicable		
Total - Releases to Land			
Total Quantity Released			0.0000

Breakdown of Annual Releases

Distribute Equally

Quarterly Breakdown *

Jan - Mar %	Apr - Jun %	Jul - Sep %	Oct - Dec %
25	25	25	25
Total %			
100			

Reasons for Changes in Quantities Released from Previous Year

Select the applicable reason or reasons *

No significant change (i.e. < 10%) or no change

Comments ? (On-Site Releases)

Disposals

Reasons for Changes in Quantities Disposed from Previous Year

Select the applicable reason or reasons.

No significant change (i.e. < 10%) or no change

Comments? (Disposals)

Recycling

Reasons for Changes in Quantities Recycled from Previous Year

Select the applicable reason or reasons *

No significant change (i.e. < 10%) or no change

Comments? (Recycling)

Export to PDF format with descriptions

Export

Back

Version: 3.3.1

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travel.gc.ca (<http://www.voyage.gc.ca/index-eng.asp>)

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servicecanada.gc.ca (<http://www.servicecanada.gc.ca/eng/home.shtml>)

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jobbank.gc.ca (<http://www.jobbank.gc.ca/intro-eng.aspx>)

ECONOMY

actionplan.gc.ca (<http://actionplan.gc.ca/eng/index.asp>)

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Emissions Calculations

NPRI and O Reg 127/01 Reporting

2013

0125-REP-07297.1-0500421 T(7)

Calculation of Emissions

Waste density: 100 kg/ m³ solid Ref: Operations and Maintenance experience
 870kg/ m³ liquid Ref: Application for C of A - July 27, 2001

Volume of Waste Incinerated: Solid Waste 469.4 m³ Ref: Process Summary Spreadsheets
 Liquid Waste 18.7 m³ Ref: Process Summary Spreadsheets

Weight of Waste Incinerated: Solid waste 469.394 m³ x 100 kg/m³ = 46940 kg
 Liquid waste 18.6548 m³ x 870 kg/m³ = 16229.7 kg
 Total Weight = 63169 kg

Incinerator burn time: 1841.4hr - Afterburner outlet temperature above 1000⁰C
 Ref: Process Summary Spreadsheets

Dioxin/Furans

Reporting of dioxins/furans is individual isomers and reported in grams to E-6 and not grams TEQ

Dioxin/Furan emission for 2013

Specific Isomer	Emission rate g/hr <small>*1 (unit conversion)</small>	Total Emission (Emission Rate x Burn Time) grams <small>*2,*3</small>
2378-tetrachlorodibenzo-p-dioxin	9.360E-10	1.72355E-06
12378-pentachlorodibenzo-p-dioxin	7.200E-10	1.32581E-06
123478-hexachlorodibenzo-p-dioxin	1.692E-09	3.11565E-06
123678-hexachlorodibenzo-p-dioxin	4.680E-09	8.61775E-06
123789-hexachlorodibenzo-p-dioxin	2.556E-09	4.70662E-06
1234678-heptachlorodibenzo-p-dioxin	2.808E-08	5.17065E-05
Octachlorodibenzo-p-dioxin	3.132E-08	5.76726E-05
2378-tetrachlorodibenzofuran	9.000E-10	1.65726E-06
12378-pentachlorodibenzofuran	7.920E-10	1.45839E-06
23478-pentachlorodibenzofuran	7.920E-10	1.45839E-06
123478-hexachlorodibenzofuran	9.000E-10	1.65726E-06
123678-hexachlorodibenzofuran	7.920E-10	1.45839E-06
234678-hexachlorodibenzofuran	6.120E-10	1.127E-06
123789-hexachlorodibenzofuran	7.200E-10	1.32581E-06
1234678-heptachlorodibenzofuran	2.340E-09	4.30888E-06
1234789-heptachlorodibenzofuran	1.512E-09	2.7842E-06
Octachlorodibenzofuran	1.080E-09	1.98871E-06

Total	8.0424E-08	1.481E-04

Notes:

- 1) From Table 44 Ortech Report CD# 0125-REP-79700-00020 R000
- 2) Incinerator burn time = time afterburner outlet temperature is above 1000°C = 1841.4 hrs
- 3) Reportable to NPRI if greater than 1.0E-6

The NPRI Reporting Program converts the isomer concentrations to gm TEQ and the emission in 2013 was 1.48E-04 g TEQ and is reported as 0.000g TEQ in the 2013 NPRI Report.

Historical data from past NPRI reports:

Emission in 2007	6.70E-5 g TEQ	reported to NPRI as 0.000 gm TEQ
Emission in 2008	1.40E-4 g TEQ	reported to NPRI as 0.000 gm TEQ
Emission in 2009	6.08E-5 g TEQ	reported to NPRI as 0.000 gm TEQ
Emission in 2010	3.71E-5 g TEQ	reported to NPRI as 0.000 gm TEQ
Emission in 2011	2.72E-4 g TEQ	reported to NPRI as 0.000 gm TEQ
Emission in 2012	1.69E-4 g TEQ	reported to NPRI as 0.000 gm TEQ

Hexachlorobenzene

Hexachlorobenzene emission rate for 2013 was 9.0E-06 g/hr from Ortech Report CD# 0125-REP-79700-00020 R000 Table 63.

Hexachlorobenzene emission for 2013 was 9.0E-06 g /hr x 1841.4 hr = 1.66E-2 g (reported to on 2013 NPRI report).

Historical Data from past NPRI reports:

Emission in 2007	4.16E-2 g
Emission in 2008	1.23E-2 g
Emission in 2009	1.29E-1 g
Emission in 2010	6.16E-2 g
Emission in 2011	4.43E-2 g
Emission in 2012	2.85E-2 g

Calculations Prepared by: _____ Date: _____

N. King
Permits and Approvals Coordinator

Calculations Verified by: _____ Date: _____

Dylan Wake
Performance Engineering