Impacts of PRTR Reporting in Canada

Environment and Climate Change Canada



UNITAR/UNEP Final Lessons Learned Workshop of the GEF Global PRTR Project - March 25-27, 2019



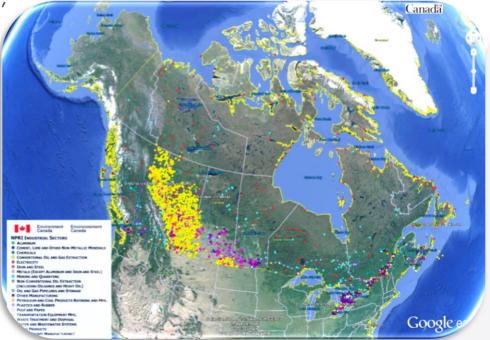
Outline

- Introduction to the NPRI
- Tools for accessing NPRI data
- How does the Government of Canada use PRTR data?
- How do Canadians benefit from the NPRI?
- How do industries benefit from the NPRI?

What is the

National Pollutant Release Inventory?

- <u>The National Pollutant Release Inventory</u> (NPRI) is Canada's Pollutant Release and Transfer Register;
- It falls under the Canadian Environmental Protection Act, 1999, and is implemented by Environment and Climate Change Canada (ECCC);
- Collects data from over
- 7000 Canadian facilities;
- The NPRI covers releases, disposals and transfers for recycling of over 300 substances;
- The NPRI **does not** cover greenhouse gas (GHGs);
- <u>ECCC has a GHGs</u> inventory similar to the NPRI.



Tools for Accessing NPRI Data

NPRI Online Query Tool

Quick, easy to find information on a particular facility.

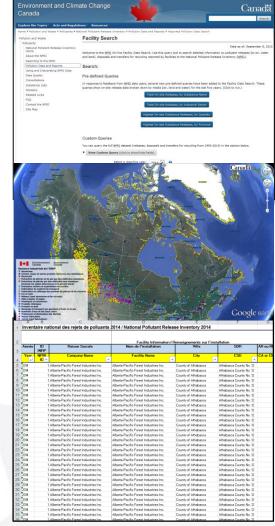
Predefined Queries

Aggregated data by substance, industrial sector, quantity and province.

NPRI Map Layers for Use in Google Earth™

Explore NPRI data in an intuitive and visual way.

<u>MS Excel or CSV Files – Tabular Data</u> Most common fields in a simplified spreadsheet format.



Tools for Accessing NPRI Data

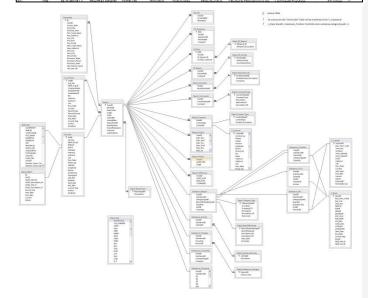
MS Excel or CSV files – Bulk Data

Analyze the grouped data by sets for releases, disposals and transfers for all reporting years.

NPRI Database (on demand) Useful for custom analysis for "technical" users.

- Tutorials are available for the following tools:
 - Online query tool and pre-defined queries;
 - Map layers with Google Earth; and
 - CSV or MS Excel tabular files.

| | A B | C | D | E | F | G | Н | 1 | J | K | L | M | N | 0 | - |
|-----|----------------------|-------------------|-------------------|--------|------------|-----------|--------------------------|-----------------------|--------------|------------------------|-----------|----------------|--------|---------------|-------|
| | Reporting_Ye = NPRLI | | | | Provinci - | CAS_Numbe | Substance Nam* | | | | Categor - | Category IF re | | | Extin |
| 2 | 2014 | | ALBERTA-PACIFIC I | 322112 | | NA - 19 | Hexavalent chromium | | | | Landill | Enfouissement | 65.52 | | M3 |
| 3 | 2014 | | ALBERTA-PACIFIC I | 322112 | | NA - 10 | Mercury land its comp | | | | Landill | Enfouissement | 1.69 | | M3 |
| 4 | 2014 | | ALBERTA-PACIFIC I | 322112 | | 218-01-3 | Benzolaiphenanthen | | | | Landill | Enlouissement | 0.64 | | E2 |
| 5 | 2014 | | ALBERTA-PACIFIC F | 322112 | | NA - 14 | Zinc (and its compour | | | | Landill | Enfouissement | | tonnez | M3 |
| 6 | 2014 | | ALBERTA-PACIFIC F | 322112 | | NA-09 | Manganese (and its c- | | | | Landill | Enfouissement | | tornes | M3 |
| 7 | 2014 | | ALBERTA-PACIFIC I | 322112 | | NA-08 | Lead(andits compou | | | | Landill | Enfouissement | | kg | M3 |
| 8 | 2014 | | ALBERTA-PACIFIC H | 322112 | | NA-03 | Cadmium (and its com | | | | Landill | Enfouissement | 317.92 | | M3 |
| 9 | 2014 | | ALBERTA-PACIFIC F | 322112 | | 85-01-8 | Phenanthrene - PAH | | | | Landill | Enfouissement | 4.64 | | E2 |
| 10 | 2014 | | ALBERTA-PACIFIC I | 322112 | | NA-02 | Arsenio land ks comp- | | | | Landill | Enlouissement | 38.45 | | M3 |
| 11 | 2014 | | ALBERTA-PACIFIC F | 322112 | | 206-44-0 | Fluoranthene - PAH | | | | Landill | Enlouissement | 2.28 | | E2 |
| 12 | 2014 | 1 ALBERTA-PACIFI | ALBERTA-PACIFIC F | 322112 | | NA-22 | | | | Elmination sur le site | Landill | Enfouissement | | tormez | M3 |
| 13 | 2014 | | MOMENTINE SPECIF | | | 50-00-0 | | Formaldéhyde | | Elmination hors site | Landill | Enfouissement | | torvnes | 0 |
| 14 | 2014 | | MOMENTIVE SPECIF | | | 108-55-2 | Phenol (and its salts) | | | | Landill | Enfouissement | | tonnes | 0 |
| 15 | 2014 | | BAYCOAT LTD. | 332810 | | NA - 11 | Nokel (and its compo- | | | | Landill | Enfoutesement | | tonnez | C |
| 16 | 2014 | 15 BAYCOATLTD. | BAYCOAT LTD. | 332810 | CN | NA-16 | Zino landits compour- | Zino let ses compose | Oll-site Do | Elmination hors site | Landill | Enfouissement | 29.667 | tomes | С |
| 17 | | | BAYCOAT LTD. | 332810 | | NA-04 | Chromium Landits con | | | | Landill | Enlouissement | | tonnes | С |
| 18 | | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 85-68-7 | Butyl benzyl phthalate | Phitalate de benzyle | OB-site Da | Elmination hore site | Landill | Enfouissement | | tonnes | 0 |
| 19 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | CN | 100-41-4 | Etybenzerie | Dhylbenzène | Oll-site Do | Elmination hors site | Landill | Enfouissement | 0.31 | tormes | 0 |
| 20 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 67-64-1 | Acetone | Acérone | Off-site De | Elmination hors site | Landill | Enlouissement | 0.45 | tomes | 0 |
| 21 | | | BASE CANADAINC. | 325510 | ON | NA - 14 | Zino landits compour | | OB-site Da | Elmination hors site | Landill | Enfouissement | 0.11 | tonnes | 0 |
| 22 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | CN | 111-76-2 | 2-Buterowhand | 2-Butosyithanol | Off-site Da | Elmination hors site | Landill | Enfouissement | 15 | torvies | 0 |
| | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 872-50-4 | N-Nethal-2-punckdor | N-Mirhul-2-purolide | OII-site Do | Elmination hors site | LandH | Enlouissement | 0.075 | tornes | 0 |
| 24 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 78-83-1 | i-Bund alcohol | 2-Mithulpropan-1-o | OH-ste Da | Elmination hore site | LandBI | Enfouiccement | 0.051 | toroes | 0 |
| 25 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | CN | 99-82-8 | Currene | Cumine | Off-site Da | Elmination hors site | Landill | Enfoursement | 0.015 | torvies | 0 |
| 26 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 1330-20-7 | XMene Initial isomers | Xviène Invilance d'u | Off-site Do | Elmination hors site | Landill | Enfouissement | 15 | tonnes | 0 |
| 27 | | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 50-00-0 | Formaldehude | Formaldéhude | | Elmination hors site | Landill | Enfouissement | | tonnes | 0 |
| 28 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | CN | 71-36-3 | n-Butslalcohol | Butan-1-ol | Oll-site Da | Elmination hors site | Landill | Enfoursement | 0.18 | tormes | 0 |
| 29 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 95-63-6 | 12.4-Trimethylbencer | 12.4-Triméthylbenci | Off-site Do | Elmination hors site | Landill | Enfouipsement | 0.36 | tormes | 0 |
| 30 | 2014 | 31 VINDSOR SITE | BASE CANADAINC | 325510 | ON | 100-00-3 | Tokene | Tokaline | Off-site Di | Elmination hors site | Landil | Enfouissement | 0.28 | nones | 0 |
| 31 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | CN | 108-10-1 | Nethyl isobutyl ketone | Métholisobutylecétor | Oll-site Da | Elmination hors site | Landill | Enlouissement | 1.1 | tomes | 0 |
| 32 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 91-20-3 | Nachthalene | Naphtaline | Off-site Do | Elmination hors site | Landill | Enfouissement | 0.058 | tonnez | 0 |
| 33 | 2014 | 31 VINDSOR SITE | DATE CANADA NO. | 325510 | CN . | 70-93-3 | Mathal ashal katone | Néthaléthakolonna | Cill-site Di | Dimination hors site | Landil | Enfouissement | 0.025 | nones | 0 |
| 34 | 2014 | 31 VINDSOR SITE | BASE CANADAINC. | 325510 | ON | 67-56-1 | Methanol | Méthanol | Olf-site Da | Elmination hors site | Landill | Enlouissement | 0.002 | tomes | 0 |
| 35 | | | BASE CANADA INC. | 325510 | | 67-63-0 | Isopropel alcohol | Alcool tro-propulique | Off-site Da | Elmination hors site | Landill | Enfouizzement | | tonnez | ō. |
| 36 | 2014 | 34 TOFONTO SITE | BASE CANADAINC. | 325210 | ON | 64-10-6 | Formio acid | Acide formique | Oll-site De | Elmination hors site | Landill | Enfouissement | 0.007 | tormes | 0 |
| 37 | 2014 | 34 TOFONTO SITE | BASE CANADAINC. | 325210 | ON | 107-21-1 | Ethelene alvool | Óhuiknegkool | Olf-site De | Elmination hors site | Landill | Enfouissement | 0.52 | tomes | 0 |
| 38 | 2014 | 57 USINE DELAPOC | BOMBARDERING. | 336510 | | NA-TI | Nickel (and its composi- | | | | Landill | Enfourcement | | tonnes | C |
| 29 | | 57 USNEDELAPOC | | 336510 | | NA-09 | Manganese (and its or | | | | Laveli | Enfouringment | | himes | c |
| 40 | 2014 | 57 USNE DE LA POC | POMIARDER NC | 336510 | oc. | NA-04 | Chromium landits con | | | | Landill | Enfouissement | 105 | tomes | C |
| 4.5 | | 84 DLANTNO 1 | | | | 7632-00-0 | Sock monitole | | | | | | | in the second | 0 |



Tools for Accessing NPRI Data – Visits and Downloads

• The tools for accessing NPRI data are popular among NPRI data users to complete analyses.

| ΤοοΙ | Visits | Downloads |
|--------------------|--------------------------|-----------|
| Online Query | Unavailable at this time | N/A |
| Predefined Queries | 482 | 475 |
| Map Layers | 1 798 | 1 176 |
| Tabular Data | 1 000 | 740 |
| Bulk Data | 943 | 974* |

*Individual files are offered for geolocation and substance releases, disposals and transfers for recycling.

How does the Government of Canada Use NPRI Data?

- The NPRI is a key resource for identifying and monitoring sources of pollution in Canada and it's a starting point for better understanding how pollutants are entering the Canadian environment. The Government of Canada uses NPRI data to:
 - Identify pollution prevention priorities;
 - Support assessment and risk management of chemicals and air quality modelling;
 - Supports initiatives such as the <u>Chemicals Management Plan</u> and the <u>Air Quality Management System</u>;
 - Improve public understanding; and
 - Support annual international reporting reporting requirements.
- Data from the NPRI help track pollution patterns and trends across Canada

How do Canadians Benefit From the NPRI?

- Public "right-to-know" (transparency) is a fundamental underlying principle of the NPRI.
- The NPRI:
 - Identifies the facilities and pollutants in their community;
 - Raises awareness on environmental issues; and
 - Supports research completed by various levels of academia.
- The NPRI is adopting the knowledge-on-demand paradigm and is working on developing a project portfolio to translate our data into more understandable interpretations of risk, impact and priorities. This represents :
 - An important opportunity to guide users towards correct interpretations of NPRI data; and
 - A more efficient way to reach objectives of identifying priorities for pollution prevention and improving public understanding.

Project Portfolio: Communication and Outreach (1)

- NPRI University Challenge (pilot year on-going)
 - Inspired by the Environmental Protection agency's (EPA) Toxics Release Inventory (TRI) University Challenge
 - Aims to increase awareness of NPRI data within academic communities and expose new audiences to NPRI data, tools and analysis
 - The challenge being put to the academic community is to generate innovative products, activities, recommendations, or research that improves the understandability, accessibility, awareness and usability of NPRI data

Project Portfolio: Communication and Outreach (2)

- NPRI Sector Overview Series
 - Industry-specific factsheets that showcase NPRI data while providing background on innovative sectors
 - Currently available: <u>Wastewater sector overview</u>
 - Upcoming sector overviews: Aluminum, electricity, metal ore mining and oil sands extraction
- NPRI Data Integration Series
 - Showcases linkages between NPRI data and other environmental datasets.
 - Upcoming factsheet: Water Quality
- Partnerships with museums
- Booths at festivals and conferences

How do Industries benefit from the NPRI?

- Facilities benefit from the NPRI. Advantages include:
 - Encourage actions to reduce the release of pollutants into the environment;
 - <u>Pollution prevention</u> plans and activities improve processes and reduces cost, making them more efficient and competitive.
 - Strengthen their corporate image; and
 - Enhance their relationship with communities
 - Environmental sustainability leads to social and economic benefits.
 - Engagement of Indigenous peoples and other key stakeholders.
- The NPRI provides industry with a strong support system so:
 - They know whether they need to report to the NPRI;
 - They know how to compile and obtain the required data; and
 - Their reporting burden is minimized.

Helpdesk support

- NPRI staff provide support to facilities via email and telephone
- Typical requests received include:
 - Technical questions;
 - Electronic reporting system questions;
 - Requests for access to reporting system.
- Response time:
 - Service standard is three business days;
 - Usually able to respond within the same day.
- Correspondence tracked in Client Relationship
 Management database (i.e., Microsoft Dynamics)

Development of an Electronic Reporting System

- The development of a "One stop shop" for federal and provincial reporting requirements has allowed for a more efficient and effective reporting process for industry.
- Supports the shared interest across jurisdictions in tracking and reporting progress on the reduction of GHGs emissions and pollutant releases.
- Guiding principles:
 - Streamline facility reporting and reducing reporting burden and cost;
 - Real-time access to raw, unaltered information;
 - Secure data collection, storage and dissemination;
 - Data exchange standards that enable efficient linkages/integration with other North American reporting systems;
 - Reporting interface and platform flexible to meet reporting needs; and
 - User access and availability of reporting in English and French.

How does an Electronic Reporting System Reduce Reporting Burden?

| Three | Ways to reduce the reporting burden for industry and governments |
|--------------|---|
| \checkmark | Tombstone information : Users only provide their administrative information once for all programs in the reporting system (company's name, address, contacts, phone numbers etc.). |
| ✓ | Data is carried over from another program or from another year as necessary: Users can copy a previous year's report into their current report (pre-fill functionality). Users can use the pre-populate functionality so the data submitted to provinces is copied into their federal report where applicable. |
| 0 | Harmonization of Regulatory Reporting Requirements: Provincial reporting requirements are largely harmonized with the ECCC Reporting Program; therefore, only one module is used to report to the provincial government and ECCC. |

Contact the NPRI

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