

# National Pollutant Release Inventory

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## Introduction

The National Pollutant Release Inventory (NPRI) was created in 1992 to provide information on pollutants released to the environment and transferred for disposal. Reporting of NPRI is mandated under the Canadian Environmental Protection Act (CEPA) and is due by June 1<sup>st</sup> of the following year.

Each year, Environment Canada updates the NPRI substance list and revises reporting criteria after consultation with stakeholders. The NPRI currently tracks over 300 substances or groups of substances.

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## What are the goals of NPRI?

The goals of NPRI are:

- to provide Canadians with access to pollutant release information for facilities located in their communities
  - assist governments and others in identifying priorities for action
  - encourages industry to take voluntary measures to reduce releases
  - allows for tracking of progress in the reduction of releases
  - supports a number of regulatory initiatives across Canada
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## What are the NPRI Substances?

The NPRI substances are broken into several Parts:

- Part 1
    - Group 1 – General list of 232 substances and families
    - Group 2 – Mercury
    - Group 3 – Cadmium
    - Group 4 – Lead, arsenic, Hex chrome, tetraethyl lead
  - Part 2 – Polycyclic Aromatic Hydrocarbons
  - Part 3 – Dioxins & Furans, Hexachlorobenzene
  - Part 4 – Criteria Air Contaminants
  - Part 5 – Speciated Volatile Organic Compounds
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## Who is required to report to the NPRI?

In general, any person in Canada who owns or operates a non exempt facility is required to submit a report to the NPRI, if they meet all of the three following criteria:

- employees worked a total of 20,000 hours or more (equivalent to 10 full-time employees) during the calendar year, and
- the facility manufactured, processed, or otherwise used 10 tonnes (10,000 kg) or more of an NPRI substance in the calendar year **including by-products**, and
- the NPRI substance was manufactured, processed or otherwise used at a concentration greater than or equal to 1% by weight, with the exception of NPRI substance considered to be by-products.

**Note:** There are a number of NPRI substances that have alternate thresholds. These thresholds are substance specific and must be considered for each facility and contaminant.

**Note:** There are a number of specific activities for which the 20,000 employee hours threshold does not apply.

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## Exemptions to Reporting

A facility is exempt from reporting if the only source or use of a NPRI substance at the facility is from one or more of the activities listed below:

- educating or training students, such as at universities, colleges and schools
- research or testing
- maintaining and repairing transportation vehicles, such as automobiles, trucks, locomotives, ships or aircraft, **except** painting and stripping of vehicles and their components, or the rebuilding or remanufacturing of vehicle components
- distribution, storage or retail sale of fuels, **except** as part of the terminal operations
- wholesale or retail sale of articles or products, if the substance is not released to the environment during normal use at the facility
- retail sale of the substance
- growing, harvesting or managing renewable natural resources, such as fisheries, forestry or agriculture, **but not** the processing or other use of renewable natural resources
- mining, **but not** the further processing or other use of mined materials
- the practice of dentistry.

**Note:** These exemptions do not apply to the Criteria Air Contaminants

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## Removal of Employee Hour Threshold for Specified Activities

Removal of the 20,000 employee hour threshold for all NPRI substances, if the entity is engaged in any of the following activities:

- *non-hazardous solid waste incineration with a capacity of **26 tonnes or more of waste per year**, including small combustion units, conical burners and beehive burners;*
  - *biomedical or hospital waste incineration with a capacity of **26 tonnes or more of waste per year**;*
  - hazardous waste incineration
  - sewage sludge incineration
  - wood preservation
  - *terminal operations and other large fuel storage facilities; and*
  - *discharge of treated or untreated wastewater from a wastewater collection system with an annual average discharge of **10,000 cubic meters or more per day**, into surface waters.*
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**What is required to be reported to the NPRI?**

If the reporting criteria are met for an NPRI substance, then **all** releases of the substance must be reported **regardless of the concentration or amount and include releases to:**

- air
  - underground injection
  - surface water
  - land, and
  - offsite transfers for disposal or recycling
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**Definition:  
Other-use**

Other use means :

- any use *or disposal* of a substance, listed in Schedule 1, relevant to the purpose of the facility which is not included under the definitions of “manufacture” or “process”
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**Definition:  
Facility**

Facility - refers to contiguous facility and pipeline installation:

- A *contiguous facility* (formerly “facility”) means all buildings, equipment, structures and stationary items that are located on a single site or on contiguous or adjacent sites and that are owned or operated by the same person and that functions as a single integrated site and also includes wastewater collection systems that discharge treated or untreated wastewater into surface waters.
  - A *pipeline installation* is defined as a collection of equipment situated at a single site, used in the operation of a natural gas transmission or distribution pipeline.
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**Definition:  
By - Product**

By-product means:

- a substance which is incidentally manufactured, processed or otherwise used at the facility at *any* concentration, and released on site to the environment, released to surface waters or transferred off site for disposal
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**Helpful  
Web Links**

National Pollutant Release Inventory

<http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&n=4A577BB9-1>

National Pollutant Release Inventory (NPRI) Substance Lists

<http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&n=E2BFC2DB-1>

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## LEHDER Capabilities

LEHDER capabilities in NPRI reporting consist of:

- Development of a strategic approach considering quantities manufactured, processed, or otherwise used, by-products released, hours worked per year and NPRI substance concentrations to establish if reporting is required.
- Determine onsite releases to the environment and offsite transfers for disposal or recycling using assessment techniques consistent with good engineering practices.
- Preparation of report package including NPRI report in electronic format and supporting documentation
- Source Emission Testing using recognized stack-testing methodologies, e.g. EPA Method 30 VOST, and state of the art FTIR technology to **quantify and speciate releases of VOC.**

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## LEIMS: LEHDER ESH Information Management Service

The LEHDER ESH Information Management Service (LEIMS) is well suited to the development and maintenance of source and emission inventories. LEIMS is provided by LEHDER to manage our client's ESH data in a consolidated custom data management system integrated with a graphical interface.

LEHDER has developed specific modules for addressing the requirements of annual NPRI reporting that ensure the methodology to calculate releases and transfers is clearly documented the record keeping requirements are met

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## For further information

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## About LEHDER

LEHDER is one of the largest Air Quality Management consulting companies in Canada. Our team of consulting professionals is built around our core strength in industrial environmental, health and safety management.

LEHDER recognizes our client's need to make decisions that provide for operational flexibility while meeting regulatory, economic and social requirements.

Visit our web site at [www.lehder.com](http://www.lehder.com)

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