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GUIDANCE DOCUMENT ON ELEMENTS OF A PRTR: PART I

Series on Pollutant Release and Transfer Registers

No. 17

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OECD Environment, Health and Safety Publications

Series on Pollutant Release and Transfer Registers

No. 17

GUIDANCE DOCUMENT ON ELEMENTS OF A PRTR: PART I

IOMC

INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS

A cooperative agreement among: FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD

Environment Directorate
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
Paris 2014
Publications on Pollutant Release and Transfer Registers

Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development. Guidance Manual for Governments (OECD/GD(96)32) (1996).

PRTR Series

No. 1: Proceedings of the OECD International Conference on Pollutant Release and Transfer Registers (PRTRs). PRTRs: National and Global Responsibility. Tokyo, 9-11 September 1998. Part 1 (1999).

No. 2: Proceedings of the OECD International Conference on Pollutant Release and Transfer Registers (PRTRs). PRTRs: National and Global Responsibility. Tokyo, 9-11 September 1998. Part 2 (1999).

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The Inter-Organisation Programme for the Sound Management of Chemicals (IOMC) was established in 1995 following recommendations made by the 1992 UN Conference on Environment and Development to strengthen co-operation and increase international co-ordination in the field of chemical safety. The Participating Organisations are FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD. The purpose of the IOMC is to promote co-ordination of the policies and activities pursued by the Participating Organisations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.

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EXECUTIVE SUMMARY

In recent years, growing recognition of the need to evaluate environmental management and sustainable development on a global scale has emerged. When PRTR programmes gather data that are consistent with other PRTRs in definition and scope (harmonised data), information from multiple PRTRs can be harmonised and applied to meet this need. However, many of the currently existing PRTR systems were originally designed for a single country or region. As such, the data collected by each system has been shaped by factors specific to that country or region, and are often not harmonisable with data collected by other PRTRs. Although some variation among PRTRs may be necessary to ensure that PRTR systems meet their countries' needs, it could be considered collecting key data that are harmonisable with data collected by other PRTRs to enable integration of the data for global scale applications when designing new PRTR systems, or modifying existing ones.

This guidance document provides information on elements of a PRTR to national governments that are designing new PRTRs or considering revising an existing PRTR. It also provides factors that should be considered for users of multiple PRTR datasets or who examine different PRTR data. It discusses elements that may be included in the design of a PRTR and describes considerations for developing PRTR systems whose data can be harmonised (combined) with data from other PRTRs for global scale analysis. Elements discussed include:

- **Reporting Universe:** designing a PRTR's reporting units, covered reporting sectors, covered chemicals, activity thresholds, data elements, and reporting periods;
- **Release Estimation Techniques:** providing available release estimation techniques and documenting techniques used to estimate reported quantities;
- **Efficient System Development:** balancing the costs of data collection with the value of data collected and protecting sensitive information; and
- **Disseminating PRTR Information:** identifying options for disseminating PRTR data and publishing PRTR data for use in global scale analyses.

For each element, this document compares how existing PRTRs have been designed, presents recommendations from the OECD Council on Implementing PRTRs, and provides options for the design and implementation of new or revised PRTRs. Options provided consider two objectives for PRTRs: 1) meeting the needs of the country implementing the PRTR, and 2) collecting data that can be harmonised with data from other PRTRs.

This document also provides useful resources for developing PRTR systems, including a list of documents that address:

- Design and implementation of PRTRs;
- Harmonisation of sectors, chemicals, and activity thresholds;
- Integration of PRTR data for international scale analysis;
- Release estimation techniques; and
- How existing PRTR systems have been designed.

This document is published under the responsibility of the Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology of the OECD.

ABBREVIATIONS

AMAP	Arctic Monitoring and Assessment Programme
ANZSIC	Australian and New Zealand Standard Industrial Classification
API	Application Programming Interface
BOE	Basis of Estimate
CAS	Chemical Abstracts Service
CEC	Commission for Environmental Cooperation
EEA	European Environment Agency
EET	Emission Estimation Technique
E-PRTR	European Pollutant Release and Transfer Register
GHG	Greenhouse Gas
ISIC	International Standard Industrial Classification
I-TEF	International Toxicity Equivalency Factor
IUPAC	International Union of Pure and Applied Chemistry
NACE	Statistical Classification of Economic Activities in the European Community (Nomenclature statistique des activités économiques dans la Communauté européenne)
NAICS	North American Industry Classification System
NGO	Non-governmental Organization
NPI	National Pollutant Inventory
NPRI	National Pollutant Release Inventory
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative and Toxic
PCDD	Polychlorinated Dibenzodioxins
PCDF	Polychlorinated Dibenzofurans
POP	Persistent Organic Pollutant
PRTR	Pollutant Release and Transfer Register

RET	Release Estimation Techniques
RETC	Registro de Emisiones y Transferencia de Contaminantes
TET	Transfer Estimation Technique
TEQ	Toxic Equivalent
TRI	Toxics Release Inventory
U.S. EPA	United States Environmental Protection Agency
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNITAR	United Nations Institute for Training and Research
WHO IOMC	World Health Organization Inter-Organization Programme for the Sound Management of Chemicals
WHO TEF	World Health Organization Toxicity Equivalent Factor

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1. BACKGROUND

1.1 Benefits of PRTRs

Pollutant release and transfer register (PRTR) systems typically require facility owners or operators to SHORT quantify and report on a given cycle the quantities of hazardous chemical substances and other pollutants they release into the environment or otherwise manage as waste. This information is then made publicly accessible. Research shows that, within a country with a PRTR system, various stakeholders benefit from access to PRTR data (UNECE, 2012a; U.S. EPA, 2013a):

- **The public** can use PRTR data to: identify potential chemical exposures and risks; make informed decisions, and monitor the progress of facilities' efforts to lessen their environmental impacts or make improvements in sustainable development practices.
- **Governmental agencies** can use PRTR data to: measure trends in pollutant releases and waste generation; inform environmental policy decisions; evaluate an agency's environmental programmes; assess progress towards sustainable development on a global scale; identify potential human health and environmental risks, and abide with reporting requirements under international agreements and conventions, such as OECD Council Decision C/(96)41/Final, as amended in 2003 C(2003)87 (OECD, 2003a).
- **Regulated entities** can use PRTR data to identify opportunities to improve efficiency, reduce wastes and associated costs, and monitor their own progress towards sustainable development.
- **Other stakeholders**, such as non-governmental organizations (NGOs), researchers, news media, and academicians, benefit from access to published PRTR information on local, regional or national scale for various end uses related to research and investigation.¹

An emerging application of PRTR data is its use in global scale analyses of release and transfers from industrial facilities and other emissions sources throughout the world. For example, data from multiple PRTR systems that can be harmonised (combined) enables the tracking of releases and other waste management quantities of toxic chemicals globally and, therewith, the above benefits can be expanded to a global scale. To allow for robust global applications, it is highly important that data collected by different PRTR systems be as harmonised as possible. A country may consider designing a PRTR system with characteristics similar to other PRTR systems, while at the same time including in the design specific aspects that address the country's own needs and expectations.

1.2 Purpose of This Guidance

This document provides information on key elements of a PRTR to national governments that are designing new PRTRs or considering revising an existing PRTR and describes considerations for developing PRTR systems whose data are compatible and can be integrated with data from other PRTRs

¹ A recent U.S. EPA study found PRTR data from the US Toxics Release Inventory (TRI) is used for research on a range of topics, including environmental justice concerns, impacts of corporate environmental performance on stock value, public health implications of exposure to toxic materials, and evaluating real estate value (2013a).

for global scale analysis. For each element, this document compares how existing PRTRs have been designed, presents recommendations from the OECD Council on Implementing PRTRs, and provides options for designing a PRTR that 1) meets the needs of the country implementing the PRTR, and 2) collects data that are harmonised with data from existing PRTRs where possible.

This document is also useful for users of PRTR data, particularly those who use PRTR data from different PRTRs. Those who plan to examine different PRTR data can consider the points raised in this document. In this document the terms “harmonise” and “harmonisation” means to make compatible, miscible or combinable. Similarly, the term “harmonised” means to be compatible, miscible, combinable, or combined (integrated).

1.3 The Growing Need to Harmonise and Analyse Information from Multiple PRTRs

1.3.1 Need for Harmonised PRTR Data

Since the 1996 OECD council recommendation (OECD, 2003a), many countries established PRTRs. To date, these countries have experienced how to design and implement their PRTRs, and have improved their PRTR systems. PRTR data from these countries have also become available widely. These experiences and data have been shared among OECD countries as well as publically. Their PRTRs have some common elements though the PRTRs is designed for their own purposes and customized to their countries' circumstances.

In recent years there has emerged growing interest and need to evaluate environmental management and sustainable development on a global scale. Well-crafted PRTRs play an important role in meeting this need. When programmes gather data that are consistent with other PRTRs in definition and scope (harmonised data), information from multiple PRTRs can be compared or combined, and used on a global scale. Harmonised global PRTR data can be used synergistically for a variety of applications; for example,

- To review the potential impacts of pollutants crossing borders (e.g. pollutants discharged into a river may flow downstream to another country), pollutants with global effects (e.g. Greenhouse Gas (GHG) emissions impacting climate change and mercury (AMAP/UNEP, 2013)), and pollutants released near border zones (Meyer *et al.*, 2012);
- To better assess whether governmental or corporate environmental programmes actually decrease pollution or merely shift pollution to other locations (Meyer *et al.*, 2012); and
- To evaluate chemical use, production, and efficiency.

The OECD Council recommendation on Implementing Pollutant Release and Transfer Registers mentions “PRTR systems should allow as far as possible comparison and Co-operation with other national PRTR systems and possible harmonisation with similar international data bases” (OECD, 2003a).

1.3.2 Efforts to Harmonise PRTR Data

Some examples of integration and use of PRTR data at a regional or global scale include:

- **Kiev Protocol** (UNECE, 2011a). The Kiev Protocol on PRTRs is the first legally binding international instrument on pollutant release and transfer registers, committing its Parties to establish PRTRs that are publicly accessible and maintained through mandatory reporting of a wide range of pollutants associated with certain environmentally significant activities. The Protocol sets minimum requirements regarding who must report data to a PRTR, how often reporting occurs, the types of data that are reported, the activities and pollutants that are covered,

and how data are disseminated. The Protocol also requires its Parties to strive to achieve convergence among PRTRs.

- **E-PRTR** (EEA, 2012). The European Pollutant Release and Transfer Register (E-PRTR) combines PRTR data from 27 EU Member States as well as Iceland, Liechtenstein, Norway, Serbia and Switzerland. Data are reported by individual facilities to the relevant competent authorities on an annual basis. The data are then provided to the European Commission and the European Environment Agency for compilation and dissemination on the E-PRTR website.
- **Taking Stock Online** (CEC, 2013). The Commission for Environmental Cooperation (CEC) combines PRTR data from Canada's National Pollutant Release Inventory (NPRI), Mexico's Registro de Emisiones y Transferencia de Contaminantes (RETC), and the United States' Toxics Release Inventory (TRI) to create the North American PRTR database. These data are available online through the CEC's Taking Stock Online Tool, which provides summary charts, custom queries, and downloads, so that users may explore information on pollution from industrial facilities across North America.
- **Action Plan to Enhance the Comparability of Pollution Release and Transfer Registers** (CEC, 2005). This CEC Action Plan puts forth recommendations to enhance the comparability of North American countries' PRTR data. It provides a framework for the countries to address differences between the national PRTR programmes and to take steps to increase comparability and integration of PRTR data collected by Canada, Mexico, and the United States.
- **OECD Centre for PRTR Data** (OECD, 2013a). The Centre for PRTR Data was developed by the OECD's Task Force on PRTRs to share PRTR data as widely as possible within the OECD area. It includes PRTR data from 39 countries compiled on a national or regional level. Users can create a report of PRTR data according to years, countries, regions, industry sectors, chemicals, types of release sources, and types of releases and transfers.
- **OECD Harmonised Lists of Pollutants and Reporting Sectors**. In an effort to improve the consistency of chemical and reporting sectors coverage among PRTRs, OECD compared chemical and reporting sector coverage among five national and regional PRTR systems² and the United Nations Economic Commission for Europe (UNECE) Kiev Protocol on PRTRs. Following this analysis, two documents were developed. The first document compares covered chemicals and their reporting thresholds among PRTRs, and proposes a harmonised list of chemicals (OECD, 2012). The second document compares covered reporting sectors and their reporting thresholds among PRTRs and proposes a harmonised list of sectors (OECD, 2013b). Use of these harmonised lists is discussed in sections 2.2.2 and 2.2.3 of this document.
- **OECD Core Environmental Indicators** (OECD, 2013c). OECD maintains a Core Set of environmental indicators that can be used at a national and international scale for tracking environmental progress and analysing environmental policies. The indicators cover various aspect of environmental pressure such as climate change, ozone layer depletion, eutrophication, toxic contamination, water resources and soil degradation. OECD is currently evaluating the addition of an indicator that uses PRTR data to measure environmental pressure on toxic contamination from emissions of heavy metals and organic compounds.

² Australia's NPI (National Pollutant Inventory), Canada's NPRI (National Pollutant Release Inventory), EU's E-PRTR (European Pollutant Release and Transfer Register), Japan's PRTR (Pollutant Release and Transfer Register) and US's TRI (Toxics Release Inventory)

1.3.3 *Challenges to Harmonising PRTR Data*

To date, the harmonisation of PRTR data has been challenging. Many existing PRTR systems were designed for a single country or region, so the data collected by each system has been shaped by factors specific to that country or region. For example, the design of a national or regional PRTR might be influenced by national environmental policies, types and size of industrial sectors, priority environmental and human health concerns, experience with emissions inventories, available resources, planned end uses, and political needs. As a result, PRTR systems often vary in terms of (OECD, 2001):

- Definition of terms (e.g. release and transfer);
- Chemicals covered;
- Regulated entities;
- Reporting thresholds;
- Inclusion of diffuse sources;
- Mandatory or voluntary reporting;
- Dissemination of data;
- Release estimation techniques;
- Reporting cycle;
- Confidentiality provisions; and
- Description of entities (e.g. industry classification).

Such differences complicate harmonisation of PRTR data. For example, harmonising records from two PRTRs that differ in chemical coverage may require the exclusion of chemicals that are found in only one of the two systems. Such exclusions limit the value and end uses of the harmonised dataset. The differences make it more difficult for policy makers to share experience in PRTR and application of PRTR data among different countries. For industry, particularly for international companies, the differences could add cost to comply PRTRs in different countries.

Although some variation among PRTRs may be necessary to ensure that PRTR systems meet their countries' needs (e.g. gathering information that complements their existing environmental programs), building a common, core set of information would ease harmonisation of key data among PRTRs for global scale applications (CEC, 2005).

2. PRTR DESIGN

2.1 Factors to Consider During PRTR Design

2.1.1 *Intended Purpose of the PRTR*

When planning to implement a PRTR, two fundamental considerations are: 1) who will be using the data; and 2) what are the data's intended end uses. While most PRTRs share similarities, many differ to varying degrees, due to the uniqueness of industry practices, regulations and user needs within the individual countries.

Key Resources for Designing PRTRs

- Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development - Guidance Manual for Governments (OECD, 1996)

Most PRTRs have diverse stakeholders, including the public; regulated entities; government agencies; NGOs; the news media; academicians and other researchers.

There is also a broad range of potential end uses of PRTR data. These include: informing the public about chemicals in their communities (right-to-know); optimizing environmental management; identifying opportunities for pollution prevention; estimating environmental and human health risks; evaluating facility and corporate performance and efficiency; determining regulated entities' compliance status; and characterizing facility universes and operations of interest for further analysis.

Data requirements will vary among these PRTR end uses, so each program must make different design choices to optimize the design of their PRTR to service their stakeholders. For example, a concerned citizen looking to identify sources of releases in his or her neighbourhood would benefit from precise facility name and address data in a PRTR. In contrast, an academician researching national trends in releases would need accurate release data and a consistent reporting period.

In global scale analyses of release and transfers from industrial facilities and other emissions sources, harmonised data with different PRTR systems is useful. To this end, a country may consider designing a PRTR system to address the country's own purposes and cover the same key elements as possible.

2.1.2 Recommendation on Implementing Pollutant Release and Transfer Registers

In 1996, the OECD Council on Implementing Pollutant Release and Transfer Registers (PRTRs) adopted a Recommendation on Implementing Pollutant Release and Transfer Registers, which calls for Member countries to establish a PRTR scheme (OECD, 2003a). Specifically, it was recommended that member countries:

1. Take steps to establish, as appropriate, implement and make publicly available a pollutant release and transfer register (PRTR) system;
2. Take into account the set of principles concerning establishment of PRTR systems (listed below); and
3. Consider sharing periodically the results of the implementation of such systems among themselves and with non-member countries with particular emphasis upon sharing of data from border areas among relevant neighbouring countries.

In addition, the Council recommended that member countries take into account the following core elements of a system:

1. A listing of chemicals, groups of chemicals, and, if appropriate, other relevant categories all of which are pollutants when released or transferred;
2. Integrated multi-media reporting of releases and transfers (air, water and land);
3. Reporting of data by source where the reporting sources are defined;
4. Reporting on a periodic basis, preferably annually; and
5. Making data available to the public.

All OECD member countries have established, or are preparing to establish a PRTR scheme in their countries.

Principles Concerning Establishment of PRTR Systems

When designing a PRTR, a country should consider the *Principles Concerning Establishment of PRTR Systems* outlined in the *Recommendation on Implementing Pollutant Release and Transfer Registers* from the OECD Council on Implementing PRTRs (OECD, 2003a).

Principles Concerning Establishment of PRTR Systems

1. PRTR systems should provide data to support the identification and assessment of possible risks to humans and the environment by identifying sources and amounts of potentially harmful releases and transfers to all environmental media.
2. The PRTR data should be used to promote prevention of pollution at source, e.g. by encouraging implementation of cleaner technologies. National governments might use PRTR data to evaluate the progress of environmental policies and to assess to what extent national environmental goals are or can be achieved.
3. In devising PRTR systems, governments should Co-operate with affected and interested parties to develop a set of goals and objectives for the system and estimate potential benefits and costs to reporters, government and society as a whole.
4. PRTR systems should include coverage of an appropriate number of substances which may be potentially harmful to humans and/or the environment which are released and or transferred.
5. PRTR systems should involve both the public and private sectors as appropriate and include those facilities which might release and/or transfer substances of interest, as well as diffuse sources, if appropriate.
6. To reduce duplicative reporting, PRTR systems should be integrated to the degree practicable with existing information sources such as licenses or operating permits.
7. Both voluntary and mandatory reporting mechanisms for providing PRTR inputs should be considered with a view as to how best to meet the goals and objectives of the system.
8. The comprehensiveness of any PRTR in helping to meet environmental policy goals should be taken into account, e.g. whether to include releases from diffuse sources ought to be determined by national conditions and the need for such data.
9. The results of a PRTR should be made accessible to all affected and interested parties on a timely and regular basis.
10. Any PRTR system should allow for mid-course evaluation and have the flexibility to be altered by affected and interested parties in response to changing needs.
11. The data handling and management capabilities of the system should allow for verification of inputs and outputs and be capable of identifying geographical distribution of releases and transfers.
12. PRTR systems should allow as far as possible comparison and Co-operation with other national PRTR systems and possible harmonisation with similar international data bases.
13. A compliance mechanism to best meet the needs of the goals and objectives should be agreed by affected and interested parties.
14. The entire process of establishing the PRTR system and its implementation and operation should be transparent and objective.

2.2 Reporting Universe

2.2.1 Reporting Unit

Point Sources

The OECD Council on Implementing PRTRs recommends that countries take into account the principle that PRTR data should include facilities that release or transfer³ substances of interest (OECD, 2003a). This recommendation is consistent with the design of most existing PRTRs; PRTRs typically collect data from reporting units that are facilities; that is point sources of emissions in defined locations that are under the control of a single owner or operator.

Designing Reporting Units

- Cover facilities/point sources of emissions
- Document a clear definition of facility
- If both point and diffuse records are covered, clearly identify which records correspond to point sources and which to diffuse sources

The definition of facility varies, however, among existing PRTRs (Table 1), due to differences in how the respective statutes that mandate PRTR reporting in each country define reporting units. This definitional difference can confound comparison and integration of PRTR data among countries. Within a given country, the statutory authority that mandates establishment of a PRTR defines the entities (facilities) to be regulated under the PRTR. While the definitions of “facility” under many existing PRTRs are similar, they are often not identical and therefore entities subject to PRTR reporting are not identical among most PRTR systems. Also, there is often some ambiguity in facility definition, or specifically what entities are required to report to a given PRTR and under what circumstances. Clear expression of the definition used by a particular PRTR will inform efforts to harmonise PRTR data and to interpret integrated data; a well-documented facility definition can be compared with reporting unit definitions from other PRTRs.

A starting point for developing a generic definition of facility may be the IUPAC (International Union of Pure and Applied Chemistry) definition of a point source, a “single emission source in a defined location” (Duffus *et al.*, 2007). Other important considerations for the definition of facility include:

- **Are portable or mobile sources considered facilities?** For example, the Canada NPRI facility definition includes portable facilities that can be entirely relocated for operation, such as portable concrete batching plants.
- **Should nearby or neighbouring establishments report separately or together?** For example, for the purposes of NPI reporting (i.e. PRTR reporting in Australia), if two or more sites are less than 2 km apart they are regarded as one facility unless residential areas are situated between the sites (Australian Government. Department of Sustainability, Environment, Water, Population and Communities, 2012).
- **Will any part of the facility be exempt?** For example, chemicals contained in structural components of the facility are exempt from reporting to the US TRI.

³ Facilities that **release** a substance include facilities that emit a chemical to the air, discharge a chemical to water, or release a chemical to land. Facilities that **transfer** a substance include facilities that transport waste that contains a chemical to another location for treatment or disposal.

- **Will any activities at the facility be exempt?** For example, non-Annex I⁴ activities carried out at reporting facilities are exempt from reporting to the EU E-PRTR.

Table 1. Reporting Units for Existing PRTR Systems

PRTR System	Reporting Unit	Definition
Australia NPI	Facility	Any building, land or offshore site from which an NPI substance may be emitted, together with any machinery, plant, appliance, equipment, implement, tool or other item used in connection with any activity carried out.
Canada NPRI	Facility	A contiguous facility, a portable facility, a pipeline installation or an offshore installation.
EU E-PRTR	Facility	One or more installations on the same site that are operated by the same natural or legal person.
Japan PRTR	Business Establishment	A unit place where a business activity that falls under a designated business category is run. In principle, it continuously runs the business activity within the same or adjacent premises under a unit administrative body (such as an enterprise).
Kiev Protocol	Facility	One or more installations on the same site, or on adjoining sites, that are owned or operated by the same natural or legal person.
US TRI	Facility	All buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with such person). A facility may contain more than one establishment.

Sources:

- Australian Government. Department of Sustainability, Environment, Water, Population and Communities (2012), *National Pollutant Inventory Guide, Version 5.3*, Australian Government, Canberra, www.npi.gov.au/sites/www.npi.gov.au/files/resources/2e4b4a22-ae4f-4254-55a2-e0098b016897/files/npiguide.pdf.
- Environment Canada (2012), *Guide for Reporting to the National Pollutant Release Inventory (NPRI) 2012 and 2013: Canadian Environmental Protection Act, 1999 (CEPA 1999)*, Environment Canada, Gatineau, www.ec.gc.ca/inrp-npri/AFC98B81-A734-4E91-BD16-C5998F0DDE6B/2012-2013_NPRI_Guide.pdf.
- European Commission (2006), *Guidance Document for the Implementation of the European PRTR*, http://prtr.ec.europa.eu/docs/EN_E-PRTR_fin.pdf.
- Government of Japan. Ministry of the Environment (2004), *Manual for PRTR Release Estimation Methods*, www.env.go.jp/en/chemi/prtr/manual/, accessed 7 October 2013.
- UNECE (United Nations Economic Commission for Europe) (2008), *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers*, United Nations, New York and Geneva, www.unece.org/fileadmin/DAM/env/pp/prtr/guidance/PRTR_May_2008_for_CD.pdf.
- U.S. EPA (United States Environmental Protection Agency) (2013b), *Toxic Chemical Release Inventory Reporting Forms and Instructions Revised 2012 Version*, EPA 260-R-13-001, U.S. EPA, Washington, www.epa.gov/tri/reporting_materials/rfi/ry2012rfi.pdf

Diffuse Sources

Additional sources of chemical emissions or transfer may also be considered for coverage under a PRTR. The OECD Council on Implementing PRTRs recommends that countries take into account the

⁴ Annex I of the E-PRTR Regulation lists 65 activities in 9 activity sectors: energy; production and processing of metals; mineral industry; chemical industry; waste and waste water management; paper and wood production and processing; intensive livestock production and aquaculture; animal and vegetable products from the food and beverage sector; and other activities.

principle that PRTR systems should include those facilities which may release and/or transfer substances of interest, as well as diffuse sources. Examples of diffuse sources are transportation, agricultural, household, forest management, releases from products, etc. Governments may wish to include both diffuse and point sources into a single PRTR to obtain a more complete view of the chemical release contributions from each of these two source types (Table 2). If a PRTR includes both diffuse and point sources, a country may consider clearly identifying records for each type of reporting unit to ensure data can be integrated with other PRTRs. For example, depending on end use, it may be appropriate to separate point source records and diffuse source records from a PRTR that covers both types of sources prior to integrating records with those from a PRTR that covers only point sources. Methods for estimating releases from diffuse sources are presented in Section 2.3.

Table 2. Inclusion of Releases from Diffuse Sources in Existing PRTR Systems

PRTR System	Includes Diffuse Sources
Australia NPI	✓
Canada NPRI	✓
EU E-PRTR	✓
Japan PRTR	✓
Kiev Protocol	✓
Netherlands PRTR	✓
US TRI	

2.2.2 Reporting Sectors

Sector Coverage

The OECD Council on Implementing PRTRs recommends that countries take into account the principle that PRTR systems should involve both the public and private sectors as appropriate, and include those facilities which might release and/or transfer substances of interest (OECD, 2003a).

Designing Sector Coverage

- Cover all sectors on Short List
- Consider covering additional sectors:
 - Sectors on Long List
 - Other sectors of interest

In an effort to improve the consistency of sector coverage among PRTRs, OECD compared reporting sector coverage among five different PRTR systems⁵ and the UNECE Kiev Protocol on PRTRs (OECD, 2013b). Reporting sectors covered under each PRTR system were cross-walked to International Standard Industrial Classification (ISIC) sectors to allow for direct comparison of sector coverage across PRTRs. OECD then developed two reporting sector lists:

- The “Long Reporting Sector List” included all 419 ISIC sectors covered by any of the studied PRTRs, and
- The "Short Reporting Sector List" included 152 ISIC sectors covered by four or more of the studied PRTRs (included in Annex 1 of this document).

To ensure a PRTR’s sector coverage overlaps with other PRTRs, a country should consider designing a PRTR system to cover all sectors on OECD’s "Short Reporting Sector List." These sectors are

⁵ Australia’s NPI, Canada’s NPRI, EU’s E-PRTR, Japan’s PRTR and US’s TRI.

consistently covered among most existing PRTRs due to their prevalence in many economies and their use and release of pollutants of concern. PRTRs may also be designed to cover sectors on OECD's "Long Reporting Sector List." Although less consistently covered than Short List sectors, reporting of pollutant releases and transfers from these sectors are typically required in two or more countries.

Additional sectors may also be considered for coverage under a PRTR. For example, a country may consider covering sectors identified in international agreements concerning PRTRs. To ensure a PRTR meets the needs of a country, the country may also consider covering industrial sectors of unique concern to the country. These sectors may include those that are the primary consumers of chemicals in a country, new and emerging sectors, or sectors associated with environmental and human health risks. For example, Israel recently proposed PRTR coverage of desalinization plants due to the prevalence of facilities in this industrial sector within Israel and their potential to release or otherwise manage as waste large quantities of certain toxic chemicals.

Defining Sectors

A country should consider using one of the following two techniques to define which sectors will be covered by a PRTR:

- Developing a list of high chemical use or pollutant release sectors from an established industry classification system: e.g. International Standard Industrial Classification (ISIC), Statistical Classification of Economic Activities in the European Community (Nomenclature statistique des activités économiques dans la Communauté européenne; NACE), Australian and New Zealand Standard Industrial Classification (ANZSIC), or North American Industry Classification System (NAICS). If a facility's operations fall within the industrial sector, it would be required to report. This technique is used by PRTRs Australia and the US.
- Developing a list of industrial activities with high chemical use or pollutant releases. If a facility performs one or more of these activities, it would be required to report. This technique is used for E-PRTR, Japan's PRTR, and the Kiev Protocol.

Defining Covered Sectors
<ul style="list-style-type: none"> • Develop a list of covered sectors using <ul style="list-style-type: none"> ○ ISIC or regional/domestic classification system, or ○ A clear list of covered industrial activities • If a regional regional/domestic classification system is used, provide information on how sectors correspond to ISIC

Either method is suitable for a PRTR whose data can be harmonisable with other PRTRs, so long as 1) all sectors on the Short List are covered by the PRTR; 2) industry classification information is collected for each facility (see section 2.2.5); 3) industry classification information can be cross-walked to ISIC, the industry classification system used to identify sectors on the Long Reporting Sector List and the Short Reporting Sector List. Information on corresponding ISIC sectors may help when comparing or possibly harmonising PRTR data; for example, the OECD Centre for PRTR data provides member countries' PRTR data mainly based on ISIC sector (OECD, 2013a).

Table 3. Techniques for Defining Sectors Employed by Existing PRTR Systems

PRTR System	Technique for Defining Sectors
Australia NPI	Industry classification system
Canada NPRI	All sectors, except a list of excluded industrial activities
EU E-PRTR	List of industrial activities

Table 3. Techniques for Defining Sectors Employed by Existing PRTR Systems

PRTR System	Technique for Defining Sectors
Japan PRTR	List of industrial activities
Kiev Protocol	List of industrial activities
US TRI	Industry classification system

2.2.3 Chemicals

Chemical Coverage

The OECD Council on Implementing PRTRs recommends that countries take into account the principle that “PRTR systems should include coverage of an appropriate number of substances which may be potentially harmful to humans and/or the environment which are released and or transferred (OECD, 2003a).”

Designing Chemical Coverage

- Cover all Short List chemicals
- Consider covering additional chemicals:
 - Long List chemicals
 - Other chemicals of interest

In an effort to improve the consistency of chemical coverage among PRTRs, OECD compared chemical coverage among five different PRTR systems and the Kiev Protocol (OECD, 2012).⁶ OECD developed two chemical lists:

- The “Long Chemical List”. Includes all 1 184 chemicals covered by any of the studied PRTRs; and
- The "Short Chemical List". Includes 126 chemicals – Chemicals covered under the Multilateral Environment Agreements such as the Stockholm Convention, the Kyoto Protocol and the Kiev Protocol⁷ and other chemicals covered by 4 or more of the studied PRTRs (included in Annex 2 of this document).

To ensure a PRTR’s chemical coverage overlaps with other PRTRs, a country should consider designing a PRTR system to cover all chemicals on OECD’s "Short Chemical List." This list includes pollutants that are covered under international environmental agreements related to emission inventories and PRTRs (e.g. POPs, GHGs, and Kiev Protocol) and pollutants that are otherwise consistently covered by most existing PRTRs. Countries may also elect to cover chemicals on OECD’s “Long Chemical List.” Releases or transfers of these pollutants are typically covered by three or more PRTRs.

Additional chemicals may also be considered for coverage under a PRTR. For example, to ensure a PRTR meets the needs of a country, the country may consider covering additional chemicals of interest to the country. These chemicals may include those with prevalent use in the country, those on national lists of regulated chemicals, and those targeted for risk reduction.

⁶ Australia’s NPI, Canada’s NPRI, EU’s E-PRTR, Japan’s PRTR and US’s TRI.

⁷ i.e. Persistent Organic Pollutants (POPs), Greenhouse Gases (GHGs), chemicals covered under the Kiev Protocol.

Defining Chemicals

PRTR systems may define chemical coverage for both individual chemicals (e.g. n-hexane) and chemical groups or categories (e.g. mercury compounds).

To ensure an individual chemical is defined consistently among PRTRs, a country may consider including Chemical Abstract Service (CAS) number in its definition. This chemical identification number is internationally recognized and is used to define individual chemicals in many existing PRTRs (Table 4). In addition, including a chemical name from an internationally recognized nomenclature system or authority (e.g. IUPAC; Chemical Abstracts Services) may ease interpretation of chemical definition.

- | Defining Covered Chemicals |
|--|
| <ul style="list-style-type: none"> • Include CAS Number in the definition for individual chemicals • Provide a descriptive name for chemical groups • Document chemical group definitions |

While the definitions of chemical groups under many existing PRTRs are similar, they are often not identical. For example, the cyanide compound group covered by Japan's PRTR includes inorganic cyanide compounds (except complex salts and cyanates) while the cyanide compound group covered by Canada's NPRI includes ionic cyanides.

The Short Chemical List serves as a useful starting point for defining chemical groups (OECD, 2012). The chemical groups included on this list were defined following analysis that considered differences between chemical group definitions from multiple existing PRTRs. If a definition is not available from the Short Chemical List, the Kiev Protocol definition for a chemical group may be of use; over 25 countries already employ Kiev Protocol chemical group definitions, so PRTR data collected using these definitions would be readily harmonisable with PRTR data from many countries. For Kiev Protocol chemical group definitions, see UNECE's *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers* (2008).

A well-documented chemical group definition can be compared with chemical group definitions from other PRTRs; therefore, clear expression of the definition of each chemical group covered by a PRTR will be important in informing efforts to harmonise PRTR data and in interpreting harmonised data. This definition may include a chemical group name, an identification number used for reporting the chemical group and clarifying remarks (e.g. a list of CAS numbers within the group, substances excluded from the group, etc.).

Table 4. Techniques for Defining Chemicals Employed by Existing PRTR Systems

PRTR System	Technique for Defining Chemicals					
	Individual Chemicals			Chemical Groups		
	Name	CAS Number	Other Identification Number	Name	CAS Number	Other Identification Number
Australia NPI	✓	✓		✓		
Canada NPRI	✓	✓		✓		
EU E-PRTR	✓	✓	✓	✓		✓
Japan PRTR	✓		✓	✓		✓
Kiev Protocol	✓	✓	✓	✓		✓
US TRI	✓	✓		✓		✓

2.2.4 Activity Thresholds

Activity Thresholds Employed by Existing PRTRs

A variety of activity thresholds are used by PRTRs to determine what chemicals a facility must report. Activity thresholds are used to limit PRTRs to facilities whose activity regarding a pollutant chemical involves mass quantities (or quantity) deemed minimally sufficient to trigger reporting of release and other waste management quantities of the chemical. Only when a facility subject to PRTR reporting exceeds an activity threshold for the chemical is the facility required to report on that chemical. Typical activity thresholds include:

Typical Activities Thresholds

Consider activity thresholds employed by existing PRTRs:

- Manufacture, processing and use thresholds
- Release quantity thresholds
- Thresholds for specific activities

- **Manufacture, processing and use thresholds:** a facility must report on a chemical to a PRTR if the facility manufactures, processes, or uses the chemical in quantities above the threshold amount. These thresholds are useful for identifying facilities: where there may be risks from chemicals handled on site at the facility; that release the chemical to the environment; or that otherwise generate quantities of the chemical that undergo other types of waste management (e.g. burned for energy recovery, recycled, treated for destruction). Thresholds also serve to minimize the burden involved with complying with PRTR regulations in that facilities that do not exceed a threshold are not required to report. Note that a facility may or may not be required to report the quantity of the chemical that it manufactured, processed, or used, in addition to the quantities it released to the environment or otherwise managed as waste.
- **Release quantity thresholds:** a facility must report a chemical to a PRTR if the facility releases the chemical in quantities that exceed the release threshold amount. These thresholds are useful for identifying facilities that have larger releases, and do not require reporting from facilities that handle large quantities of the chemical, but have low levels of releases and transfers.

- **Employee Thresholds:** a facility must report a chemical to a PRTR if the employees of the facility exceed a threshold amount such as the total number of employees or the working hours.
- **Thresholds for specific activities:** a facility must report a chemical to a PRTR if the facility performs an activity using quantities that exceed a threshold amount. For example, a facility might be required to report for combustion by-products if it burns a quantity of fuel above a threshold. These thresholds may lower the cost of data collection; it is typically easier for a facility to measure specified activities than to quantify manufacturing, processing, use, or release of chemicals. However, activity thresholds may exclude releases from facilities that handle or release a chemical for other non-threshold activities.

Existing threshold values are usually chemical specific and vary within PRTRs and across PRTRs. Generally, the lower the threshold for a chemical, the more likely it is for facilities that are subject to PRTR reporting and that have the chemical onsite will exceed the threshold. In some PRTR systems, chemicals with the potential to cause the most serious types of health effects or that have other properties that augment concern are given lower thresholds than other covered chemicals. For example, in the EU E-PRTR system, air, water, and land release thresholds vary between 0.0001 kg/year for polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) (dioxins + furans) and 100 000 000 kg/year for carbon dioxide (CO₂). Similarly, in the TRI, the US PRTR system, chemicals designated by the U.S. Environmental Protection Agency as being persistent, bioaccumulative and toxic (PBT) have much lower reporting thresholds than the chemicals not designated as PBTs.

For additional details on these and other activity thresholds employed by PRTRs, see Table 5 and OECD's *Global Pollutant Release and Transfer Register, Proposal for a Harmonised List of Pollutants* (2012).

Table 5. Summary of Activity Thresholds Employed by Existing PRTR Systems

PRTR	Employee Thresholds	Activity Thresholds	Sector-Specific Thresholds
Australia NPI	• No employee threshold	<ul style="list-style-type: none"> • Chemical usage^A (5 to 25 000 kg/yr)^B • Annual fuel combustion^A (400 000 to 2 000 000 kg/yr)^B • Hourly fuel combustion^A (1 000 kg/hour)^B • Energy use^A (60 MWh) • Power rating^A (20 MW) • Emissions/transfers^A (3 000 to 15 000 kg)^B 	<ul style="list-style-type: none"> • Employee threshold applies to certain sectors.
Canada NPRI	• 20 000 employee hours	<ul style="list-style-type: none"> • Manufacture, process, or otherwise use^A (5 to 10 000 kg/yr)^B • Release, disposal, or transfer for recycling^A (50 kg/yr)^C • Activity^C • Air releases^A (300 to 20 000 kg/yr)^B 	<ul style="list-style-type: none"> • Facilities in certain sectors must report regardless of employee threshold. • Facilities in certain sectors are exempt from reporting if annual production falls below a threshold.
EU E-PRTR	• No employee threshold	<ul style="list-style-type: none"> • Air releases^A (0.0001 – 100 000 000 kg/yr)^B • Water releases^A (0.0001 – 2 000 000 kg/yr)^B • Land releases^A (0.0001 – 2 000 000 kg/yr)^B • Offsite transfers of waste^D 	<ul style="list-style-type: none"> • Facilities in certain sectors are exempt from reporting if production capacity falls below a threshold. • Facilities in certain sectors are exempt from reporting annual production falls below a threshold.
Kiev Protocol (Two Options) ^E	<ul style="list-style-type: none"> • No employee threshold • 10 full-time employees 	<ul style="list-style-type: none"> • Air releases^A (0.001 – 100 000 000 kg/yr)^B • Water releases^A (0.001 – 2 000 000 kg/yr)^B • Land releases^A (0.001 – 2 000 000 kg/yr)^B • Offsite transfers of waste^F • Manufacture, process, or use (0.0001 – 10 000 kg/yr)^B 	<ul style="list-style-type: none"> • Facilities in certain sectors are exempt from reporting if production capacity falls below a threshold. • Facilities in certain sectors are exempt from reporting annual production falls below a threshold.
Japan PRTR	• 21 regular employees	<ul style="list-style-type: none"> • Annual amount handled (1 ton or 0.5 tons)^B 	<ul style="list-style-type: none"> • Facilities in certain sectors must report regardless of annual amount handled threshold. • Additional capacity and activity thresholds apply to facilities in certain sectors.
US TRI	• 10 full-time equivalent employees	<ul style="list-style-type: none"> • Manufacture (0.1 g to 25 000 lbs)^B • Process (0.1 g to 25 000 lbs)^B • Otherwise use (0.1 g to 10 000 lbs)^B 	-

^A Whether a threshold applies depends on the chemical.

^B The annual threshold amount(s) varies across countries, and even within countries. In the U.S. PRTR system (the TRI) for example, the annual threshold quantities for most chemicals are 25 000 pounds for manufacturing or processing a listed chemical, and 10 000 pounds for otherwise using a listed chemical. The thresholds for a subset of listed chemicals designated as persistent, bioaccumulative and toxic (PBT) are 100 pounds; and 10 pounds for a yet another subset of chemicals designated as highly PBT (and 0.1 gram for dioxin and dioxin-like compounds).

^C Threshold only applies to certain chemicals and is based on whether or not the facility engages in a list of specified activities.

^D Covered facilities must report waste transfers of hazardous waste if the amount of hazardous waste transferred off site exceeds 2 tons. In addition, covered facilities must report waste transfers of other waste if the amount of other waste transferred off site exceeds 2 000 tons.

^E The Kiev Protocol recommends that PRTRs be designed such that the chemical reporting thresholds be based either on 1) quantities of the chemical released and transferred by environmental media, or 2) number of employees and quantities of the chemical manufactured, processed, or used.

^F The Kiev Protocol recommends that the use one of two options available for off-site waste transfers thresholds:

- *Threshold for off-site transfers of individual chemicals:* Covered facilities must report off-site transfers for a chemical if the quantity of the chemical transferred off-site exceeds the threshold for the chemical (0.001 – 2 000 000 kg/yr).
- *Thresholds for off-site transfers of hazardous waste and other waste:* Covered facilities must report total transfers of hazardous waste if the amount of hazardous waste transferred off site exceeds 2 tons. In addition, covered facilities must report total transfers of other waste if the amount of other waste transferred off site exceeds 2 000 tons. These thresholds are not included in the Long and Short Chemical Lists in (Annexes 1 and 2); they are not chemical-specific.

Source:

OECD (2012), *Global Pollutant Release and Transfer Register, Proposal for a Harmonised List of Pollutants*, ENV/JM/MONO(2012)9, Series on Pollutant Release and Transfer Registers, No. 13, OECD, Paris. Note: the document was modified in 2014.

Designing Activity Thresholds for Harmonised PRTRs Data

When designing a PRTR, the selection of threshold type will depend on the needs of the country. In selecting appropriate activity thresholds, a country may consider:

- Is the country primarily interested in large releases and transfers of chemicals?
- Is the presence of a chemical at facilities of interest, even if the chemicals are not released?
- Are releases and transfers from specific activities (e.g. fuel combustion, paper production, smelting), of particular concern?
- How much of a concern is the burden of reporting imposed on smaller facilities?

Designing Activity Thresholds

- Select whether to use manufacture, processing and use thresholds; release quantity thresholds; or specific activity thresholds based on needs of the country
- Consider existing PRTRs' thresholds when setting threshold values

Designing PRTRs to have threshold types and values consistent with other PRTRs would improve the comparability and miscibility of PRTR data, especially among PRTRs in which there is overlap in the chemicals they regulate. However, existing PRTRs often do not use consistent reporting threshold values. For reporting thresholds employed by the Australia, Canada, the EU, Japan, and the US, see OECD's *Global Pollutant Release and Transfer Register, Proposal for a Harmonised List of Pollutants* (2012).

The Kiev Protocol reporting thresholds may serve as a useful starting point for designing the types and values of threshold activities. The Kiev Protocol lists manufacture, processing and use thresholds and release quantity thresholds for all covered chemicals. In addition, over 25 countries already employ Kiev Protocol thresholds, so PRTR data collected using these thresholds would be readily harmonisable with PRTR data from many countries. For Kiev Protocol reporting thresholds, see UNECE's *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers* (2008).

For chemicals not covered by the Kiev Protocol, thresholds may be identified from other PRTRs that cover the chemical. If different thresholds for a given chemical are identified in multiple PRTRs, the toxicity and potential environmental impacts of the chemical relative to other covered chemicals may be considered when determining which threshold is the most suitable.

2.2.5 Data Elements

Priority Data Elements for Harmonised PRTR Data

Priority data elements reported to PRTRs are used to identify each facility, identify each facility's industry, identify the chemicals each facility handles, quantify releases of those chemicals, and quantify transfers of those chemicals to other locations (Table 6).

To ensure key information is available for international analyses, a country may consider designing a PRTR to collect, at a minimum, the following data elements:

- Facility Identification:
 - An identification number assigned to the facility to track all reporting from the facility over time. Note that a country may consider using facility identification numbers from existing environmental information systems.
 - Facility name
 - Facility address
- Industry Classification:
 - A code identifying the facility's industry from a global (e.g. ISIC), national, or regional industry classification system. Note that if ISIC is not used, the PRTR program should confirm that national or regional industry codes can be cross-walked to ISIC codes to allow for integration with other PRTRs in global scale sector analysis.
- Chemical Identification:
 - Chemical Abstracts Service (CAS) registry number, an internationally recognized chemical identification number, used for individually reported chemicals
 - Other chemical identification numbers, used for a chemical or chemicals reported as a member of a chemical category or group (e.g. mercury compounds)
 - Chemical name given in accordance to an internationally recognized nomenclature system or authority (e.g. the International Union of Pure and Applied Chemistry or IUPAC; Chemical Abstracts Services)
- Releases by Environmental Media:
 - Quantity released to air over the reporting period
 - Quantity released to water over the reporting period
 - Quantity released to land over the reporting period
- Transfers:
 - Quantity transferred off-site over the reporting period

Designing Data Elements

Include priority data elements:

- Facility Identification (name, address)
- Industry Classification
- Chemical Identification (CAS, chemical name)
- Releases by Environmental Media (air, water and land)
- Transfers

Table 6. Collection of Priority Data Elements by Existing PRTR Systems

Data Element	PRTR System						
	Australia NPI	Canada NPRI	EU E- PRTR	Japan PRTR	Kiev	Protocol	US TRI
Facility Identification							
Identification Number	✓	✓	✓			✓	✓
Facility Name	✓	✓	✓	✓		✓	✓
Facility Address	✓	✓	✓	✓		✓	✓
Industry Classification							
Industry Classification Code	✓ (ANZSIC)	✓ (NAICS)	✓ (NACE)	✓* (NACE)		✓ (NACE or ISIC)	✓ (NAICS)
Chemical Identification							
CAS Number	✓	✓	✓	✓**		✓	✓
Other Chemical Identification Numbers		✓		✓			✓
Chemical Name	✓	✓	✓	✓		✓	✓
Releases to Environmental Media							
Air Releases	✓	✓	✓	✓		✓	✓
Water Releases	✓	✓	✓	✓		✓	✓
Land Releases	✓	✓	✓	✓		✓	✓
Transfers							
	✓	✓	✓	✓		✓	✓

* Industry classification in Japan's PRTR is developed based on Japanese Standardised Industrial Classification.

** This is an optional reporting requirement.

Sources:

Australian Government. Department of Sustainability, Environment, Water, Population and Communities (2013), NPI Paper Reporting Form, www.npi.gov.au/resource/npi-paper-reporting-form, accessed 7 October 2013.

Environment Canada (2013b), NPRI Database Structure, www.ec.gc.ca/inrp-npri/default.asp?lang=En&n=1FA4184D-1, accessed 7 October 2013.

European Commission (2006), *Guidance Document for the Implementation of the European PRTR*, http://prtr.ec.europa.eu/docs/EN_E-PRTR_fin.pdf.

Government of Japan, Ministry of the Environment (2004), *Manual for PRTR Release Estimation Methods*, www.env.go.jp/en/chemi/prtr/manual/, accessed 7 October 2013.

UNECE (United Nations Economic Commission for Europe) (2008), *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers*, United Nations, New York and Geneva, www.unece.org/fileadmin/DAM/env/pp/prtr/guidance/PRTR_May_2008_for_CD.pdf.

U.S. EPA (United States Environmental Protection Agency) (2013b), *Toxic Chemical Release Inventory Reporting Forms and Instructions Revised 2012 Version*, EPA 260-R-13-001, U.S. EPA, Washington, www.epa.gov/tri/reporting_materials/rfi/ry2012rfi.pdf.

Other Data Elements Collected in Existing PRTRs

To ensure the data collected by a PRTR meets the intended end uses of a country, the country may also consider other data elements useful for more complex analysis. Other data elements found to be useful in existing PRTRs include those found in Table 7.

Designing Other Data Elements

Consider including additional data elements, such as:

- Public and technical points of contact
- Release and transfer quantities in grams-TEQ (reported for dioxins and furans)
- Type of waste treatment, disposal, recycling, or energy recovery performed by facilities receiving transfers

Table 7. Other Elements Collected in Existing PRTR Systems

Data Element	PRTR Systems Collecting Data Element					
	Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	Kiev Protocol	US TRI
Facility						
• Parent company (name, identification number, address)	✓	✓	✓		✓	✓
• Parent company type (e.g. publically traded, private corporation, government owned)	✓	✓				✓
• Public and technical points of contact (name, phone number, e-mail address, fax, mailing address)	✓	✓	✓	✓	✓	✓
• Latitude and longitude of facility	✓	✓	✓		✓	
• Facility type (e.g. portable, stationary)		✓				
• Facility name and address from prior submissions				✓		
• Number of installations at the facility			✓		✓	
Chemical						
• Component chemicals for substances found in chemical mixtures						✓
Reporting Process						
• Whether data are submitted voluntarily. Note that this is applicable for PRTR systems where certain data elements are required for some, but not all, facilities.	✓					
• Certifying official/notifier				✓		✓
Activities at the Facility						
• Nature of facility activity for the chemical (e.g. is the chemical manufactured, processed, or used at the facility?)	✓	✓				✓
• Industrial processes performed at the facility (e.g. freeform text descriptions, select from standard list of processes)	✓	✓	✓		✓	
• Quantities of fuel and energy consumed	✓					
• Number of employees/full time employee equivalents	✓	✓	✓	✓	✓	
• Quantity of chemical used at the facility	✓					
• Maximum amount of the chemical on-site at the facility over the reporting period						✓
• Hours of operation (number and length of shifts, average daily hours of operation, daily start time of operation)		✓	✓		✓	

Table 7. Other Elements Collected in Existing PRTR Systems

Data Element	PRTR Systems Collecting Data Element					
	Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	Kiev Protocol	US TRI
• Per cent of year in shut down or facility closure		✓				
• Ownership changes		✓				
Releases						
• Details on releases to environmental media (e.g. fugitive air emissions, point air emissions, underground injection, releases to landfills, releases to surface impoundments, disposal or tailings and waste rock, etc.)	✓	✓		✓		✓
• Quantity released as a result of remedial actions, catastrophic events, spills, accidents, or one-time events		✓	✓		✓	✓
• Breakdown of annual releases (e.g. percentage of releases by month and quarter)		✓				
• Anticipated releases in future years		✓				✓
• Water bodies receiving releases (identification number, name)		✓	✓	✓	✓	✓
• Stacks releasing chemicals to air (identification number, height, diameter, exit velocity, exit temperature, latitude, longitude)		✓				
• Release quantities in grams-TEQ ⁸ (typically reported for dioxins and furans)	✓	✓	✓	✓	✓	✓
Transfers						
• Waste water treatment plants and waste management facilities receiving transfers (name, address, identification numbers)		✓	✓		✓	✓
• Type of waste treatment, disposal, recycling, or energy recovery performed by facilities receiving transfers	✓	✓	✓	✓	✓	✓
• Reasons why chemical was transferred off-site		✓				
• Amount transferred within the country and to other countries			✓		✓	
• Transfer quantities in grams-TEQ ⁹	✓	✓	✓	✓	✓	✓
Waste Management						
• Methods and efficiencies for on-site waste treatment, energy recovery, and recycling						✓
• Amount of waste managed on-site and off-site in prior year						✓
• Anticipated waste management on-site and off-site in future years						✓

⁸ Release quantities in grams-TEQ (toxic equivalents) are reported for dioxins and furans. The grams-TEQ descriptor weights releases of each dioxin and furan by their toxicity relative to the toxicity of the chemical 2,3,7,8-TCDD. The TEQ descriptor allows comparisons that account for the differences in toxicity among dioxin and furan compounds. To ensure TEQ values collected by a PRTR are consistent with those collected by other PRTRs, a country may consider designing a PRTR to use internationally accepted methods such as the International Toxicity Equivalency Factor (I-TEF; Kutz, 1990) or World Health Organization Toxicity Equivalent Factor (WHO TEF; Berg, 2006).

⁹ Reported for dioxins and furans.

Table 7. Other Elements Collected in Existing PRTR Systems

Data Element	PRTR Systems Collecting Data Element					
	Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	Kiev Protocol	US TRI
• Reasons why substance was recycled		✓				
• Waste management quantities in grams-TEQ ¹⁰						✓
Pollution Prevention/Operational Efficiency						
• Measures of production at the facility (e.g. production ratio, activity index, production volume)			✓		✓	✓
• Source reduction and other pollution prevention activities undertaken	✓	✓				✓
• Installation of pollution control technologies (type of equipment, year installed)	✓					
• Preparation and implementation of pollution prevention plans		✓				
Release Estimation Techniques						
• Release estimation techniques for each release and transfer quantity (see section 0).	✓	✓	✓		✓	✓
• Notes on substance emissions that could not be calculated due to a lack of emission factors or other means of estimation	✓					
Resources Expended						
• Internal costs of reporting	✓					
• External costs of reporting	✓					
Miscellaneous Information						
• Public statements	✓	✓	✓		✓	✓
• Confidential statements	✓			✓		
• References to facility or corporate website	✓	✓	✓		✓	
• Explanations for year-to-year changes by chemical: no longer reported, increased emissions, decreased emissions, increased transfers, or decreased transfers.	✓	✓	✓			

Sources:

Australian Government. Department of Sustainability, Environment, Water, Population and Communities (2013), NPI Paper Reporting Form, www.npi.gov.au/resource/npi-paper-reporting-form, accessed 7 October 2013.

Environment Canada (2013b), NPRI Database Structure, www.ec.gc.ca/inrp-npri/default.asp?lang=En&n=1FA4184D-1, accessed 7 October 2013.

European Commission (2006), *Guidance Document for the Implementation of the European PRTR*, http://prtr.ec.europa.eu/docs/EN_E-PRTR_fin.pdf.

Government of Japan. Ministry of the Environment (2004), *Manual for PRTR Release Estimation Methods*, www.env.go.jp/en/chemi/prtr/manual/, accessed 7 October 2013.

UNECE (United Nations Economic Commission for Europe) (2008), *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers*, United Nations, New York and Geneva, www.unece.org/fileadmin/DAM/env/pp/prtr/guidance/PRTR_May_2008_for_CD.pdf.

U.S. EPA (United States Environmental Protection Agency) (2013b), *Toxic Chemical Release Inventory Reporting Forms and Instructions Revised 2012 Version*, EPA 260-R-13-001, U.S. EPA, Washington, www.epa.gov/tri/reporting_materials/rfi/ry2012rfi.pdf.

¹⁰ Reported for dioxins and furans.

2.2.6 Reporting Period

The recommendation from the OECD Council on Implementing Pollutant Release and Transfer Registers (PRTRs) states that PRTR data should be reported on a periodic basis, preferably annually (OECD 2003a). Annual reporting is consistent across most PRTRs; it is typical for PRTR data to be collected once a year, with data reflecting releases and transfers made during a specific 1-year period (Table 8).

Designing a Reporting Period

- Require facilities to report annually
- Collect data for the calendar year (January-December)

Most PRTRs collect data for the most recent calendar year, such that releases and transfer totals correspond to the period from January 1st to December 31st. While calendar year reporting is the most frequently employed among PRTRs, if a country's other environmental programs require reporting for a different annual period, the country may elect to collect PRTR data for the same period. For example, Japan's PRTR collects data for its fiscal year which runs from April 1st to March 31st.

Table 8. Reporting Period for Existing PRTR Systems

PRTR System	Frequency of Reporting	Reporting Period
Australia NPI	Annual	July 1 st to June 30 th or January 1 st to December 31 st
Canada NPRI	Annual	January 1 st to December 31 st
EU E-PRTR	Annual	January 1 st to December 31 st
Japan PRTR	Annual	April 1 st to March 31 st
Kiev Protocol	Annual	January 1 st to December 31 st
US TRI	Annual	January 1 st to December 31 st

[†]Nearly all NPI facility reports are for July 1st to June 30th.

2.3 Release Estimation Techniques

2.3.1 Available Release Estimation Techniques

Most PRTR systems do not require that release and other reportable quantities be determined through measurement or otherwise determined experimentally — although, if by coincidence, measurement is required under other regulations within a given country these measured values can also be used for PRTR reporting purposes. When measured data are not readily available, which is usually the case, most PRTR systems only require that facilities determine their release, transfer, and other waste management quantities of chemical pollutants by making reasonable estimates.

Several general approaches exist for estimating quantities of pollutants released to the environment from point (industrial) sources. These range from simple intuitive assessments to sophisticated empirical models. The five most widely recognised categories of release estimation techniques (RETs) are listed below (OECD, 2013d). These estimation techniques are also used to determine other reportable quantities (e.g. off-site transfers and waste management) (OECD, 2005).

1. Direct monitoring¹¹;
2. Mass balance;
3. Chemical specific emission factors;
4. Engineering calculations (indirect monitoring, models, other calculations, non-chemical specific emission factors); and
5. Engineering judgement (best professional judgement with available data), techniques based on physical-chemical properties, combinations of techniques (engineering judgement and monitoring), the application of other techniques like default emission factors, etc.

These techniques vary in terms of precision, required resources, and technical feasibility. For example, direct monitoring may provide more accurate release estimates than engineering calculations, but may require considerably more resources; monitoring requires staff to acquire, operate, and maintain monitoring equipment, while engineering calculations can be made from readily available information at the facility (e.g. purchase receipts, production yields, and publically available sources). As such, companies that report data to a national PRTR generally estimate releases using emission factors or mass balance calculations, rather than continuous monitoring data. In addition, not all release estimation techniques are appropriate for all release pathways. For example, emissions factors are frequently used to estimate air releases, but rarely apply to estimating releases to land.

For additional detail on release estimation techniques available for generating PRTR data, see OECD's *Resource Compendium of PRTR Release Estimation Techniques* (2003b, 2005, 2011 and 2013d) or access *the OECD Resource Centre for PRTR Release Estimation Techniques* (2013e).

2.3.2 Documenting Release Estimation Techniques

Estimation of a reported quantity introduces some level of uncertainty into PRTR data (OECD, 2005). Although it is difficult to quantify the uncertainty surrounding each release or transfer quantity in a PRTR, knowing which techniques were used to estimate each quantity provides some insight into how the uncertainty varies among data points from a single PRTR or a harmonised PRTR dataset. To provide clear guidance to reporting entities as well as to help end users interpret of PRTR data, both in local and international scale analyses, a country may consider designing a PRTR to collect and disseminate the release estimation techniques associated with each release and transfer quantity.

Documenting Release Estimation Techniques

- Document the estimation technique used to estimate each release and transfer quantities collected by the PRTR

¹¹ The emission factor for release estimation is directly monitored. Then, it will be multiplied by certain activity data (e.g. production volume, amount of total gas emission) to obtain the emission amount of the target chemical.

Table 9. Release Estimation Technique Documentation in Existing PRTR Systems

PRTR System	Documentation of Release Estimation Techniques
Australia NPI	Emission Estimation Technique (EET) codes are collected for each release quantity: <ul style="list-style-type: none"> • 1 Mass balance • 2 Engineering calculations • 3 Direct measurement • 4 Emission factors • 5 Approved alternative EET method
	Transfer Estimation Technique (TET) codes are collected for each transfer quantity: <ul style="list-style-type: none"> • 1 Mass balance • 2 Engineering calculation • 3 Direct measurement • 4 Transfer factors • 5 Approved alternative TET
Canada NPRI	Basis of Estimate codes are collected for each release and transfer quantity: <ul style="list-style-type: none"> • M1: Continuous Emission Monitoring • M2: Predictive Emission Monitoring • M3: Source Testing • C: Mass Balance • E1: Site Specific Emission Factors • E2: Published Emission Factors • O: Engineering Estimates • NI: No Information Available
	Method used for determination of releases/off-site transfers is collected for each release and transfer quantity: <ul style="list-style-type: none"> • M: Measurement <ul style="list-style-type: none"> ○ Internationally approved measurement standard short designation of the relevant standard (e.g. EN 14385:2004) ○ Measurement methodology already prescribed by the competent authority in a licence or an operating permit for that facility (PER) ○ National or regional binding measurement methodology prescribed by legal act for the pollutant and facility concerned (NRB) ○ Alternative Measurement Method in accordance with existing CEN/ISO measurement standards (ALT) ○ Measurement methodology the performance of which is demonstrated by means of certified reference materials and accepted by competent authority (CRM) ○ Other measurement methodology (OTH) • C: Calculation <ul style="list-style-type: none"> ○ Internationally approved calculation method (ETS,IPCC, UNECE/EMEP) ○ Calculation methodology already prescribed by the competent authority in a licence or an operating permit for that facility (PER) ○ National or regional binding calculation methodology prescribed by legal act for the pollutant and facility concerned (NRB) ○ Mass balance method which is accepted by the competent authority (MAB) ○ European-wide sector specific calculation method (SSC) ○ Other calculation methodology (OTH) • E: Estimation

Table 9. Release Estimation Technique Documentation in Existing PRTR Systems

PRTR System	Documentation of Release Estimation Techniques
Japan PRTR	<p>Procedures for calculating release and transfer quantities are discussed in Japan's <i>Manual for PRTR Release Estimation Methods</i>:</p> <ul style="list-style-type: none"> • Mass balance • Direct measurement • Emission factors • Application of phys/chem property
Kiev Protocol	<p>Method used for determination of releases/off-site transfers is collected for each release and transfer quantity:</p> <ul style="list-style-type: none"> • M: measured; analytical method used • C: calculated; calculation method used • E: estimated
US TRI	<p>Basis of estimate (BOE) codes are collected for each release and transfer quantity:</p> <ul style="list-style-type: none"> • M1: Estimate is based on continuous monitoring data or measurements for the EPCRA section 313 chemical. • M2: Estimate is based on periodic or random monitoring data or measurements for the EPCRA section 313 chemical. • C: Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA section 313 chemical in streams entering and leaving process equipment. • E1: Estimate is based on published emission factors, such as those relating release quantity to through-put or equipment type (e.g. air emission factors). • E2: Estimate is based on site specific emission factors, such as those relating release quantity to through-put or equipment type (e.g. air emission factors). • O: Estimate is based on other approaches such as engineering calculations (e.g. estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a waste stream, even if the composition of the stream before treatment was fully identified through monitoring data.

Sources:

- Australian Government. Department of Sustainability, Environment, Water, Population and Communities (2012), *National Pollutant Inventory Guide, Version 5.3*, Australian Government, Canberra, www.npi.gov.au/sites/www.npi.gov.au/files/resources/2e4b4a22-ae4f-4254-55a2-e0098b016897/files/npiguide.pdf.
- Environment Canada (2013b), NPRI Database Structure, www.ec.gc.ca/inrp-npri/default.asp?lang=En&n=1FA4184D-1, accessed 7 October 2013.
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- UNECE (United Nations Economic Commission for Europe) (2008), *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers*, United Nations, New York and Geneva, www.unece.org/fileadmin/DAM/env/pp/prtr/guidance/PRTR_May_2008_for_CD.pdf.
- U.S. EPA (United States Environmental Protection Agency) (2013b), *Toxic Chemical Release Inventory Reporting Forms and Instructions Revised 2012 Version*, EPA 260-R-13-001, U.S. EPA, Washington, www.epa.gov/tri/reporting_materials/rfi/ry2012rfi.pdf.

2.4 Efficient System Development

2.4.1 *Balancing the Costs of Data Collection with the Value of Data Collected*

Reporting entities must expend resources to gather and report PRTR data. The authority administering a PRTR also expends resources to collect, compile, check data quality, and publish PRTR data. The OECD Council on Implementing PRTRs recommends that governments take it into account the principle that governments should co-operate with affected and interested parties to develop a set of goals and objectives for the system and estimate potential benefits and costs to reporters, government and society as a whole (OECD, 2003a).

Designing an Efficient PRTR

- Simplify reporting
- Limit the number and complexity of data elements.
- Set other reporting thresholds
- Allow optional reporting

Options for balancing the costs of data collection with the benefits of high value data include:

- **Simplifying reporting.** Providing good instructions and intuitive reporting software may minimize the time investment required to report PRTR data, and improve the quality of the data.
- **Limiting number and complexity of data elements.** If a data element of interest is already available for facilities in another government database, it may not be necessary to collect the data as part of the PRTR system.
- **Setting other reporting thresholds.** Thresholds can be set to reduce the time and resource impacts on small businesses. For example, Japan's PRTR limits reporting to those facilities with 21 or more employees, Canada's NPRI limits reporting to facilities with 20 000 or more employee hours, and the US TRI limits reporting to facilities with 10 or more full time equivalent employees.
- **Providing alternate reporting forms.** Simplified reporting forms may be allowed for situations where environmental impacts are expected to be minimal. For example, the US TRI allows facilities that manufacture, process or otherwise use less than one million pounds of a listed chemical (except a PBT chemical) annually, and whose total reportable quantities for that chemical do not exceed 500 pounds for that year to submit an abbreviated alternate reporting form (Form A) for that chemical.
- **Allowing optional reporting.** Reporting for certain data elements may be made optional for low impact activities or contextual information. For example, Australia's NPI allows facilities to voluntarily report on transfers destined for reuse and recycling (reporting transfers destined for disposal is mandatory). Similarly, the Kiev Protocol recommends optional reporting for several data elements (e.g. production volume, number of installations, operating hours in year, and number of employees).
- **Providing Web-based reporting systems.** Web-based reporting systems can reduce the time investment required to complete and revise PRTR reporting forms. For example, the TRI-MEweb System used by the US TRI pre-loads facility identifying information for facilities that have reported in prior years and has built in quality checks that minimize the need for later revisions.
- **Synergies with other reporting systems.** Data in a PRTR system may be harmonised with other environmental reporting systems to reduce duplicative reporting. For example, a single reporting system might be developed that allows regulated entities to simultaneously submit 1) information

they are required to report to the PRTR and 2) information related to compliance with emissions limits in permits.

When designing a PRTR, a country should consider the varying impacts of alternative design options on the value of data collected for the PRTR's stakeholders and the benefits from integration with other PRTRs. Simplifying reporting has a minimal impact on data richness; it merely allows reporters to provide information as efficiently as possible. Limiting the number and complexity of data elements can also be a useful strategy for designing an efficient and harmonised PRTR, as long as priority data elements are included in the list of data elements collected. In contrast, setting alternate thresholds, providing alternate reporting forms, and allowing optional reporting is more likely to leave data gaps that make PRTR data harder to harmonise; these options limit the number of facilities that will report to a PRTR or the number of reporters that complete each data element.

Table 10. Options for Balancing the Costs of Data Collection with the Benefits of High Value Data Employed by Existing PRTR Systems

Option	PRTR Systems Employing Option						
	Australia NPI	Canada NPRI	EU PRTR	E- PRTR	Japan PRTR	Kiev Protocol	US TRI
Simplifying reporting	✓	✓	✓	✓	✓	✓	✓
Limiting number and complexity of data elements	✓	✓	✓	✓	✓	✓	✓
Setting other reporting thresholds	✓	✓	✓	✓	✓	✓	✓
Providing alternate reporting forms							✓
Allowing optional reporting	✓	✓	✓	✓	✓	✓	✓
Providing Web-based reporting systems	✓	✓			✓	✓	✓
Synergies with other reporting systems		✓*					✓*

* Reporting systems allow users to sign in to a single system where they can access a reporting module for the PRTR and modules for other reporting programs.

2.4.2 Protecting Sensitive Information

A country may consider designing a PRTR to protect trade secrets and other sensitive information, when the disclosure of PRTR data can be shown to put facilities at a competitive disadvantage. To protect sensitive information, some PRTRs sanitize portions of records prior to publication (Table 11). For example, prior to publishing data, the US TRI program removes chemical identity information from records where trade secret claims have been made (all other data elements from the record are published).

Designing a PRTR that Protects Sensitive Information

- Minimize data sanitization to the extent possible without putting reporters at a competitive disadvantage
- Publish as much non-sensitive information as possible for records

When designing a PRTR, a country may consider:

- What data elements might be sanitized (for example, chemical identity, facility identity, activity information);
- What documentation would be needed from a facility to justify sanitizing data (for example, it might be required that a facility certify that PRTR reported information is not publically available, describe the harmful effects that would result from disclosing the information publicly, and/or explain how competitors might benefit from the information);
- How to sanitize data to protect sensitive information while publishing as much non-sensitive information as possible (for example, sanitize chemical identify for a record, but publish facility identifiers and release and transfer quantities for that record); and
- What procedures will be used to safeguard submission and storage of sensitive information prior to sanitization.

A key feature of PRTRs is that they provide a wide range of data to the public. Designing a PRTR that sanitizes much of the information it collects will detract from the PRTR’s usefulness. Sanitizing data may also interfere with the integration of PRTR data. For example, sanitizing the industry sector reported by facilities prevents the use of facility records for a global analysis of industry sectors. To maximize the utility of a PRTR for local, national, and global scale analyses, a country should consider minimizing the sanitization of PRTR data.

Table 11. Protection of Sensitive Information in Existing PRTR Systems

PRTR	Protection of Sensitive Information
Australia NPI	<p>Information required by the NPI may be determined as commercially confidential if:</p> <ul style="list-style-type: none"> • The occupier of a facility required to report under the NPI submits a claim relating to NPI data; • Public release of that data required by the NPI could reasonably be expected to have significant adverse impacts on the commercial interests of the provider of that information; • The damage to commercial interests outweighs the public interest in publication of that information on the risk (in terms of environmental and human health impacts) which the information would convey; and • The information is not available elsewhere in the public domain. <p>Details of emissions where a claim for non-disclosure of commercially sensitive information is successful will not be made available to the public.</p>

Table 11. Protection of Sensitive Information in Existing PRTR Systems

PRTR	Protection of Sensitive Information
Canada NPRI	<p>Any person who provides information may submit, with their information, a written request that it be treated as confidential, based on any of the following reasons:</p> <p>(a) The information constitutes a trade secret;</p> <p>(b) The disclosure of the information would likely cause material financial loss to, or prejudice to the competitive position of, the person providing the information or on whose behalf it is provided; and</p> <p>(c) The disclosure of the information would likely interfere with contractual or other negotiations being conducted by the person providing the information or on whose behalf it is provided.</p> <p>The person must also demonstrate that this information is not available to the general public through legal means, such as obtaining a public copy of a provincial waste permit.</p>
EU PRTR	<p>Facilities may claim individual pieces of information within their report as confidential. Decisions on confidentiality are taken by the competent authorities of the Member States in accordance with the E-PRTR Regulation. The data that the competent authority of a Member State classifies as confidential is not be transmitted to the European Commission, which compiles E-PRTR.</p>
Japan PRTR	<p>Information containing trade secrets may be reported directly to the state government, bypassing reporting to prefectural governments. The prefectural governments may request the state governments explain trade secret data. When requested by a citizen, the State government discloses data of individual businesses while keeping trade secrets.</p>
Kiev Protocol	<p>The Kiev Protocol recommends that information should be held, where the public disclosure of that information would adversely affect:</p> <p>(a) International relations, national defence or public security;</p> <p>(b) The course of justice, the ability of a person to receive a fair trial or the ability of a public authority to conduct an enquiry of a criminal or disciplinary nature;</p> <p>(c) The confidentiality of commercial and industrial information, where such confidentiality is protected by law in order to protect a legitimate economic interest;</p> <p>(d) Intellectual property rights; or</p> <p>(e) The confidentiality of personal data and/or files relating to a natural person if that person has not consented to the disclosure of the information to the public, where such confidentiality is provided for in national law</p> <p>Additional recommendations are provided regarding data sanitization, such as:</p> <ul style="list-style-type: none"> • Where the name of the chemical is kept confidential, the chemical family or similar generic information should be provided. • Where personal data is kept confidential, all information except the name, address of the operator/owner and the geographical location of the facility should be given • In any case, the register should clearly mention the number of cases where confidentiality has been applied and the reasons for which the information has been withheld.
US TRI	<p>Chemical identity information is removed from records where trade secret claims have been made (all other data elements from the record are published).</p>

Sources:

- Government of Western Australia. Department of Environment and Conservation (2009), *Guidelines for facilities claiming commercial confidentiality for data reported to the Department of Environment and Conservation in accordance with the National Environmental Protection (National Pollutant Release Inventory) Measure*, www.der.wa.gov.au/images/documents/your-environment/pollution/npi_cic_guidelines_-_final_document_june_2009_.pdf.
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- Government of Japan. Ministry of the Environment, Ministry of Economy, Trade and Industry (2001), *Outline of the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof*, www.env.go.jp/en/chemi/prtr/documents/pdf/outline_of_the_Act.pdf.
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- U.S. EPA (United States Environmental Protection Agency) (2013b), *Toxic Chemical Release Inventory Reporting Forms and Instructions Revised 2012 Version*, EPA 260-R-13-001, U.S. EPA, Washington, www.epa.gov/tri/reporting_materials/rfi/ry2012rfi.pdf.

2.5 Disseminating PRTR Information

The OECD Council on Implementing PRTRs considers making data available to the public to be a core element of a PRTR system (OECD, 2003a); stakeholders need access to PRTR data in order to use and benefit from the information contained in a PRTR system.

2.5.1 Options for Disseminating PRTR Data

There are several options a country may consider when designing mechanisms to disseminate PRTR data to stakeholders. For example,

- **At what level of aggregation should PRTR data be made available?** Options include:
 - Publishing records for individual chemicals and facilities; and/or
 - Aggregating records prior to publication (e.g. presenting release and waste management totals by chemical, industry, or geographic region).
- **In what format should PRTR data be made available?** Options include:
 - Reports that provide summaries of PRTR data with interpretive text;
 - Raw data files/databases;
 - Analytical tools (e.g. searchable databases, mapping tools, pre-set query tools, ad hoc query tools);
 - Press releases highlighting important trends or data points;
 - Fact sheets designed for a specific audience (e.g. concerned citizens) or end use; and/or
 - Exports and APIs (Application Programming Interfaces) designed for integration with data from other PRTRs.
- **Where should data be located?** Options include:
 - A stand-alone website for the PRTR;
 - Webpages within environmental agency websites;
 - Websites providing international PRTR data (e.g. Taking Stock Online, OECD Centre for PRTR Data, E-PRTR);
 - Public libraries; and/or
 - Housed by a competent authority and available upon request.

Designing a System to Disseminate PRTR Data
<ul style="list-style-type: none"> • Provide information for: <ul style="list-style-type: none"> ○ Individual facilities and chemicals ○ Aggregate records • Disseminate information through analytical tools/websites

Since data needs and end uses vary among stakeholders, the most appropriate and efficient mechanism for dissemination will vary. For example, concerned citizens may benefit most from simple fact sheets that summarize and interpret PRTR data reported by facilities near where they live or work. In contrast, researchers may benefit most from raw data files useful for many types of analysis. For PRTRs serving multiple stakeholder groups, multiple disclosure mechanisms may be needed.

PRTR data also can be provided together with supplemental information such as guidance document on how PRTR data should (or should not) be interpreted, regulatory information, hazard information (e.g. toxicity) and exposure information (OECD, 2013f). Providing contact information (e.g. telephone number, e-mail, online form for inquiry) with published datasets, documents, or analytical tools may also be considered to collect feedback from data users.

Table 12. Dissemination of Information by Existing PRTR Systems

Option	PRTR Systems Employing Option						
	Australia NPI	Canada NPRI	EU PRTR	E- PRTR	Japan PRTR	Kiev Protocol	US TRI
Level of Aggregation							
• Individual Facilities/Chemicals	✓	✓	✓		✓	✓*	✓
• Aggregate Records	✓	✓	✓		✓	✓*	✓
Format							
• Summary and interpretive reports	✓	✓			✓	✓*	✓
• Raw data files/databases		✓	✓		✓		✓
• Analytical tools	✓	✓	✓		✓	✓*	✓
• Press releases			✓		✓	✓*	✓
• Fact sheets	✓				✓		✓
• Exports for integration with other PRTRs.	✓	✓	✓		✓		✓
Location							
• Stand-alone website for the PRTR	✓		✓			✓**	
• Webpage within environmental agency website		✓			✓	✓**	✓
• Websites providing international PRTR data	✓	✓	✓		✓		✓
• Public libraries						✓***	✓
• Available upon request					✓	✓***	

* Recommended under the Kiev Protocol

** The Kiev Protocol does not distinguish whether a website should stand alone or fit within an environmental agency site.

*** Recommended under the Kiev Protocol if resources are not available for developing a website.

2.5.2 Disseminating PRTR Data for Use in Global Scale Analyses

To ensure PRTR information is accessible to stakeholders interested in conducting global scale analyses, a country should consider implementing mechanisms for disseminating PRTR data that facilitate integration with data from other PRTRs. Successful mechanisms would:

- **Publish key data elements for global scale analyses**, including facility identification, industrial classification, chemical identification, releases by environmental media, and transfers (see section 2.2.5; Table 13). Presenting these data for each facility and chemical allows stakeholders to select the records that are most appropriate to use in combination with records from other PRTRs. For example, a stakeholder

Publishing PRTR Data for Global Scale Analyses

- Publish key data elements for each facility and chemical (table 12)
- Include documentation

that wishes to combine data from two PRTRs could select records where the chemical is covered by both PRTRs and the facility is in a sector covered by both PRTRs.

Table 13. Key Data Elements for Global Scale Analysis

Category	Data Element
Facility Identification	<ul style="list-style-type: none"> • Facility identification number • Facility name • Facility address
Industry Classification	<ul style="list-style-type: none"> • Industry code for the facility (e.g. ISIC code).
Chemical Identification	<ul style="list-style-type: none"> • CAS number • Other chemical identification numbers (used for chemicals reported as groups) • Chemical name
Releases by Environmental Media	<ul style="list-style-type: none"> • Quantity released to air over the reporting period • Quantity released to water over the reporting period • Quantity released to land over the reporting period
Transfers	<ul style="list-style-type: none"> • Quantity transferred off-site over the reporting period
Documentation for interpretation (see the next bullet)	<ul style="list-style-type: none"> • Definition, activity thresholds, inclusion of point/diffuse sources, releases estimation techniques, reporting period (e.g. 2013), reporting unit (e.g. tonnage/year)

- **Include documentation for interpretation of PRTR data.** Documentation would allow a stakeholder to identify similarities and differences between PRTRs that would, in turn, inform development of appropriate methods for analysing PRTR data and interpreting results in global scale analysis. It would be published at the same time as and travel with datasets intended for global scale analysis. Documentation might include:
 - Definitions for each data element included in the dataset,
 - A discussion of the reporting universe (e.g. covered sectors, chemicals, activity thresholds, inclusion of point/diffuse sources) with definitions for key terms (e.g. reporting unit, chemical groups),
 - Notes on release estimation techniques employed to generate PRTR data,
 - Version information (e.g. date last updated, reporting years included) , and
 - Any potential data caveats (e.g. optional reporting, sanitization of sensitive information).

3. SUPPORT MATERIALS

This section presents citations for useful resources for developing PRTR systems, including documents about:

- The design and implementation of PRTRs,
- The harmonisation of sectors, chemicals, and activity thresholds,
- The integration of PRTR data for international scale analysis,
- Release estimation techniques, and
- Existing PRTR systems.
- In addition, it presents materials for designing reporting thresholds, sector coverage and chemical coverage, including:
 - OECD's Short Reporting Sector List, and
 - OECD's Short Chemical List.

3.1 Designing and Implementing PRTRs

OECD (Organisation for Economic Co-operation and Development) (1996), *Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development - Guidance Manual for Governments*, OECD/GD(96)32, OECD, Paris.

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UNECE (2013a), *2014 National Implementation Reports*, UNECE, Geneva, www.unece.org/environmental-policy/treaties/public-participation/protocol-on-prtrs/areas-of-work/implementation-and-compliance/envppprtr-reports-implementation-2014.html.

UNECE (2013b), PRTR.net, UNECE, Geneva, www.prtr.net/en/.

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WHO IOMC (World Health Organization Inter-Organization Programme for the Sound Management of Chemicals) (2010), IOMC Toolbox for Decision-making in Chemicals Management, WHO, Geneva, www.who.int/iomc/toolbox/en/index.html.

3.2 Harmonising Sectors, Chemicals, and Activity Thresholds

CEC (Commission for Environmental Cooperation) (2005), *Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America*, CEC, Montreal, www3.cec.org/islandora/en/item/2234-action-plan-enhance-comparability-pollutant-release-and-transfer-registers-in-en.pdf.

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OECD (2012)¹², *Global Pollutant Release and Transfer Register, Proposal for a Harmonised List of Pollutants*, ENV/JM/MONO(2012)9, Series on Pollutant Release and Transfer Registers, No. 13, OECD, Paris.

OECD (2013b), *Global Pollutant Release and Transfer Register: Proposal for a Harmonised List of Reporting Sectors*, ENV/JM/MONO(2013)5, Series on Pollutant Release and Transfer Registers, No. 15, OECD, Paris.

UNECE (2012c), *Results of Surveys on Protocol on Pollutant Release and Transfer Registers*, ECE/MP.PRTR/WG.1/2012/5, UNECE, Geneva, www.unece.org/fileadmin/DAM/env/pp/prtr/WGP-2/ECE.MP.PRTR.WG.1.2012.5-final-1Nov.pdf.

3.3 Integrating PRTR Data for International Analysis

CEC (2013), Taking Stock Online, www.cec.org/Page.asp?PageID=751&ContentID=&SiteNodeID=1097&BL_ExpandID=&AA_SiteLanguageID=1..

EEA (European Environment Agency) (2012), E-PRTR, <http://prtr.ec.europa.eu/Home.aspx>.

OECD (2013a), Centre for PRTR Data, www.oecd.org/env/prtr/data.

UNECE (2012a), *PRTRs advancing sustainability, environmental governance and a green economy*, http://staging.unece.org/fileadmin/DAM/env/pp/prtr/docs/2012/PRTR_brochure_-_13_june_-_EN_colour.pdf.

¹² The document was modified in 2014. The chemical list in Annex 2 uses the modified document.

3.4 Release Estimation Techniques

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OECD (2003b), *Resource Compendium of PRTR Release Estimation Techniques - Part 2: Summary of Diffuse Source Techniques*, ENV/JM/MONO(2003)14, Series on Pollutant Release and Transfer Registers, No. 6, OECD, Paris.

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OECD (2013d), *Revision 1 Of The Resource Compendium of PRTR Release Estimation Techniques - Part 1: Summary of Point Source Techniques*, ENV/JM/MONO(2002)20/REV1, Series on Pollutant Release and Transfer Registers, No. 5, OECD, Paris.

UNECE (2012c), *Results of Surveys on Protocol on Pollutant Release and Transfer Registers*, ECE/MP.PRTR/WG.1/2012/5, UNECE, Geneva, www.unece.org/fileadmin/DAM/env/pp/prtr/WGP-2/ECE.MP.PRTR.WG.1.2012.5-final-1Nov.pdf.

3.5 Existing PRTRs and the Kiev Protocol

Australian Government. Department of Sustainability, Environment, Water, Population and Communities (2012), *National Pollutant Inventory Guide, Version 5.3*, Australian Government, Canberra, www.npi.gov.au/sites/www.npi.gov.au/files/resources/2e4b4a22-ae4f-4254-55a2-e0098b016897/files/npiguide.pdf.

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Environment Canada (2013b), NPRI Database Structure, www.ec.gc.ca/inrp-npri/default.asp?lang=En&n=1FA4184D-1.

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Government of Japan. Ministry of the Environment, Ministry of Economy, Trade and Industry (2001), *Outline of the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the*

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www.env.go.jp/en/chemi/prtr/documents/pdf/outline_of_the_Act.pdf.

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UNECE (2008), *Guidance on Implementation of the Protocol on Pollutant Release and Transfer Registers*, United Nations, New York and Geneva,
www.unece.org/fileadmin/DAM/env/pp/prtr/guidance/PRTR_May_2008_for_CD.pdf.

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ANNEX 1 SHORT REPORTING SECTOR LIST SUMMARY

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Covered?					Reporting Score							
			✓ = Fully Covered, P = Partially Covered					○ = Not Reported, ● = Low Reporting, ●● = Medium Reporting, ●●● = High Reporting							
Section	Division	Class	Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States		
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	✓	✓	P	P		P	●●●	●●●	●●●		○		
		0520 Mining of lignite	✓	✓	P	P		✓	●●●	●●●	●●●		●●		
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas		✓	P			✓	P	●●●	●●●		●●	●●●	
			07: Mining of metal ores	0710 Mining of iron ores	✓	✓	P	P	✓		●●●	●●●	●●	●●	
			0721 Mining of uranium and thorium ores	✓	✓	P	P	✓	✓	●●●	●●●	●	●●	●●●	
	07: Mining of metal ores	0729 Mining of other non-ferrous metal ores	✓	✓	P	P	✓	✓	●●●	●●●	●●●	●●	●●●		
		08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	✓	✓	P	P		P	●●●	●●●	●●		●●	
			0891 Mining of chemical and fertilizer minerals	✓	✓	P	P		P	●●●	●●●	●●		●●	
	0899 Other mining and quarrying n.e.c.		✓	✓	P	P		P	●●●	●●●	●●		●●		
	C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	✓	✓	P	P	✓	P	●●	●●	●●	●●	●●	
1020 Processing and preserving of fish, crustaceans and molluscs			✓	✓	✓	✓	✓	✓	●●	●	●●	●●	●●		
1030 Processing and preserving of fruit and vegetables			✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●		
1040 Manufacture of vegetable and animal oils and fats			✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●●		
1050 Manufacture of dairy products			✓	✓	P	P	✓	✓	●●	●●	●●	●●	●●		
1061 Manufacture of grain mill products			✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●		
1062 Manufacture of starches and starch products			✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●●		
1071 Manufacture of bakery products			✓	✓			✓	P	●●	●●		●●	●●		
1072 Manufacture of sugar			✓	P	✓	✓	✓	✓	●●●	●●	●●●	●●	●●●		
1073 Manufacture of cocoa, chocolate and sugar confectionery			✓	✓	✓	✓	✓	P	●●	●●	●●	●●	●●		
1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products		✓	✓			✓	✓	●●	●●		●●	●●			
1075 Manufacture of prepared meals and dishes		✓	✓			✓	✓	●●●	●●		●●	●●			
1079 Manufacture of other food products n.e.c.		✓	✓	P	P	✓	✓	●●●	●●	●●●	●●	●●			
1080 Manufacture of prepared animal feeds		✓	✓			✓	P	●●	●●		●●	●●			
11: Manufacture of beverages		1101 Distilling, rectifying and blending of spirits	✓	✓			✓	✓	●●	●●		●●	●●		
		1102 Manufacture of wines	✓	✓			✓	✓	●●●	○		●●	●●		
		1103 Manufacture of malt liquors and malt	✓	✓			✓	✓	●●	●●		●●	●●		
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	✓	✓			✓	P	●●	●●		●●	●		

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector	Covered?					Reporting Score					
			Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States
	12: Manufacture of tobacco products	1200 Manufacture of tobacco products	✓	✓			✓	℘	●●	●		●●	●●
	13: Manufacture of textiles	1311 Preparation and spinning of textile fibres	✓	✓	✓	✓	✓	✓	●●	●●	●	●●	●●
		1312 Weaving of textiles	✓	✓			✓	✓	●	●		●●	●●
		1313 Finishing of textiles	✓	✓			✓	℘	●●	●●		●●	●●
		1391 Manufacture of knitted and crocheted fabrics	✓	✓			✓	✓	○	○		●●	●
		1392 Manufacture of made-up textile articles, except apparel	✓	✓			✓	℘	●●	●●		●●	●●
		1393 Manufacture of carpets and rugs	✓	✓			✓	℘	●	●●		●●	●●
		1394 Manufacture of cordage, rope, twine and netting	✓	✓			✓	✓	○	●●		●●	●●
		1399 Manufacture of other textiles n.e.c.	✓	✓	℘	℘	✓	✓	●●	●●	●●	●●	●●
	14: Manufacture of wearing apparel	1410 Manufacture of wearing apparel, except fur apparel	✓	✓			✓	℘	●●	●●		●●	●●
		1420 Manufacture of articles of fur	✓	✓			✓	✓	●●	●		●●	●●
		1430 Manufacture of knitted and crocheted apparel	✓	✓			✓	✓	○	●		●●	○
	15: Manufacture of leather and related products	1511 Tanning and dressing of leather; dressing and dyeing of fur	✓	✓	✓	✓	✓	✓	●●	○	●●	●●	●●
		1512 Manufacture of luggage, handbags and the like, saddlery and harness	✓	✓			✓	✓	●●	●●		●●	●●
		1520 Manufacture of footwear	✓	✓			✓	✓	○	●●		●●	●
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1610 Sawmilling and planing of wood	✓	℘	✓	✓	✓	✓	●●	●●●	●●	●●	●●
		1621 Manufacture of veneer sheets and wood-based panels	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●
		1622 Manufacture of builders' carpentry and joinery	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●
		1623 Manufacture of wooden containers	✓	✓	✓	✓	✓	✓	●●	●●	○	●●	●●
		1629 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●	●●
	17: Manufacture of paper and paper products	1701 Manufacture of pulp, paper and paperboard	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●	●●●
		1702 Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●●
		1709 Manufacture of other articles of paper and paperboard	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●	●●●

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Covered?					Reporting Score					
			✓ = Fully Covered, P = Partially Covered					○ = Not Reported, ● = Low Reporting, ●● = Medium Reporting, ●●● = High Reporting					
Section	Division	Class	Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States
	18: Printing and reproduction of recorded media	1811 Printing	✓	✓	✓	✓	P	P	●●	●●	●●	●●●	●●
		1812 Service activities related to printing	✓	✓			✓	✓	○	●●		●●●	●
	19: Manufacture of coke and refined petroleum products	1910 Manufacture of coke oven products	✓	✓	✓	✓	✓	✓	●●	●●	●●●	●●	●●●
		1920 Manufacture of refined petroleum products	✓	✓	✓	✓	✓	✓	●●●	●●●	●●●	●●	●●●
	20: Manufacture of chemicals and chemical products	2011 Manufacture of basic chemicals	✓	✓	✓	✓	✓	✓	●●●	●●●	●●●	●●●	●●●
		2012 Manufacture of fertilizers and nitrogen compounds	✓	✓	✓	✓	✓	✓	●●●	●●●	●●●	●●●	●●●
		2013 Manufacture of plastics and synthetic rubber in primary forms	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●●	●●●
		2021 Manufacture of pesticides and other agrochemical products	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●●	●●●
		2022 Manufacture of paints, varnishes and similar coatings, printing ink and mastics	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●●	●●●
		2023 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●●	●●●
		2029 Manufacture of other chemical products n.e.c.	✓	✓	P	P	✓	✓	●●	●●●	●●	●●●	●●●
		2030 Manufacture of man-made fibres	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●●	●●●
	21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	2100 Manufacture of pharmaceuticals, medicinal chemical and botanical products	✓	✓	✓	✓	✓	✓	●●●	●●	●●	●●●	●●●
	22: Manufacture of rubber and plastics products	2211 Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	✓	✓	✓	✓	✓	P	●●	●●	●●	●●	●●
		2219 Manufacture of other rubber products	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●	●●
		2220 Manufacture of plastics products	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●●	●●●
	23: Manufacture of other non-metallic mineral products	2310 Manufacture of glass and glass products	✓	✓	P	P	✓	✓	●●	●●●	●●	●●	●●
		2391 Manufacture of refractory products	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●
		2392 Manufacture of clay building materials	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●
		2393 Manufacture of other porcelain and ceramic products	✓	✓	✓	✓	✓	✓	●●	●	●●	●●	●
		2394 Manufacture of cement, lime and plaster	✓	✓	✓	✓	✓	✓	●●●	●●	●●●	●●	●●
		2395 Manufacture of articles of concrete, cement and plaster	✓	✓			✓	✓	●●	●●●		●●	●●●
		2396 Cutting, shaping and finishing of stone	✓	P			✓	P	●●	●●●		●●	●●

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	Class	ISIC Sector	Covered?					Reporting Score					
				Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States
		2399	Manufacture of other non-metallic mineral products n.e.c.	✓	✓	℘	℘	✓	✓	●●	●●●	●●	●●	●●●
	24: Manufacture of basic metals	2410	Manufacture of basic iron and steel	✓	✓	℘	℘	✓	✓	●●●	●●●	●●●	●●●	●●●
		2420	Manufacture of basic precious and other non-ferrous metals	℘	✓	✓	✓	✓	✓	●●●	●●●	●●	●●	●●●
		2431	Casting of iron and steel	✓	✓	✓	✓	✓	✓	●●	●●●	●●	●●●	●●
		2432	Casting of non-ferrous metals	✓	✓	✓	✓	✓	✓	●●	●●	●●	●●	●●
		2511	Manufacture of structural metal products	✓	✓			✓	✓	●●	●●		●●	●●
	25: Manufacture of fabricated metal products, except machinery and equipment	2512	Manufacture of tanks, reservoirs and containers of metal	✓	✓			✓	✓	●●	●●		●●	●●
		2513	Manufacture of steam generators, except central heating hot water boilers	✓	✓			✓	✓	●●	●●		●●	●●
		2520	Manufacture of weapons and ammunition	✓	✓	℘	℘	✓	✓	●●	●●	●	●	●●
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	✓	✓			✓	✓	●●	●●●		●●●	●●
		2592	Treatment and coating of metals; machining	✓	✓	℘	℘	✓	✓	●●	●●●	●●●	●●●	●●●
		2593	Manufacture of cutlery, hand tools and general hardware	✓	✓			✓	✓	●●	●●		●●	●●
		2599	Manufacture of other fabricated metal products n.e.c.	✓	✓			✓	✓	●●●	●●●		●●	●●●
	26: Manufacture of computer, electronic and optical products	2610	Manufacture of electronic components and boards	✓	✓			✓	✓	●●	●●		●●	●●●
		2620	Manufacture of computers and peripheral equipment	✓	✓			✓	✓	○	●●		●●	●●
		2630	Manufacture of communication equipment	✓	✓			✓	✓	●●	●●		●●	●●
		2640	Manufacture of consumer electronics	✓	✓			✓	✓	○	○		●●	●
		2651	Manufacture of measuring, testing, navigating and control equipment	✓	✓			✓	✓	●●	●●		●●	●●
		2652	Manufacture of watches and clocks	✓	✓			✓	✓	●	●●		●●	●●
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	✓	✓			✓	✓	●	●●		●●	●●
		2670	Manufacture of optical instruments and photographic equipment	✓	✓			✓	✓	●	●●		●●	●●
	2680	Manufacture of magnetic and optical media	✓	✓			✓	✓	○	●		●●	●●	
	27: Manufacture of electrical equipment	2710	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	✓	✓			✓	℘	●●	●●		●●	●●
		2720	Manufacture of batteries and accumulators	✓	✓			✓	✓	●●	●●		●●	●●●

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Covered?					Reporting Score					
			✓ = Fully Covered, ∂ = Partially Covered					○ = Not Reported, ● = Low Reporting, ●● = Medium Reporting, ●●● = High Reporting					
Section	Division	Class	Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States
		2731 Manufacture of fibre optic cables	✓	✓			✓	✓	●●	●●●		●●	●●
		2732 Manufacture of other electronic and electric wires and cables	✓	✓			✓	✓	●●	●●●		●●	●●
		2733 Manufacture of wiring devices	✓	✓			✓	✓	●●	●●		●●	●●
		2740 Manufacture of electric lighting equipment	✓	✓			✓	✓	○	●●		●●	●●
		2750 Manufacture of domestic appliances	✓	✓			✓	✓	●●	●●		●●	●●
		2790 Manufacture of other electrical equipment	✓	✓			✓	✓	●●	●●●		●●	●●
28: Manufacture of machinery and equipment n.e.c.		2811 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	✓	✓			✓	✓	●●	●●●		●●	●●
		2812 Manufacture of fluid power equipment	✓	✓			✓	✓	●●	●●●		●●	●●
		2813 Manufacture of other pumps, compressors, taps and valves	✓	✓			✓	✓	●●	●●●		●●	●●●
		2814 Manufacture of bearings, gears, gearing and driving elements	✓	✓			✓	✓	○	●●		●●	●●
		2815 Manufacture of ovens, furnaces and furnace burners	✓	✓			✓	✓	●●	●●		●●	●●
		2816 Manufacture of lifting and handling equipment	✓	✓			✓	✓	○	●●		●●	●●
		2817 Manufacture of office machinery and equipment (except computers and peripheral equipment)	✓	✓			✓	✓	○	●●		●●	●●
		2818 Manufacture of power-driven hand tools	✓	✓			✓	✓	●	●●		●●	●●
		2819 Manufacture of other general-purpose machinery	✓	✓			✓	✓	●	●●●		●●	●●●
		2821 Manufacture of agricultural and forestry machinery	✓	✓			✓	✓	○	●●		●●	●●
		2822 Manufacture of metal-forming machinery and machine tools	✓	✓			✓	✓	●	●●		●●	●●
		2823 Manufacture of machinery for metallurgy	✓	✓			✓	✓	●	●●		●●	●●
		2824 Manufacture of machinery for mining, quarrying and construction	✓	✓			✓	✓	●●	●●		●●	●●
		2825 Manufacture of machinery for food, beverage and tobacco processing	✓	✓			✓	✓	●	●●		●●	●●
		2826 Manufacture of machinery for textile, apparel and leather production	✓	✓			✓	✓	●	●●		●●	●●
		2829 Manufacture of other special-purpose machinery	✓	✓			✓	✓	●●	●●		●●	●●

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	Class	Covered?					Reporting Score					
			Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States
			✓ = Fully Covered, P = Partially Covered					○ = Not Reported, ● = Low Reporting, ●● = Medium Reporting, ●●● = High Reporting					
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	✓	✓			✓	✓	●●	●●●		●●●	●●
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	✓	P			✓	P	●●	●●		●●●	●●●
		2930 Manufacture of parts and accessories for motor vehicles	✓	✓	P	P	✓	✓	●●	●●●	●●	●●●	●●
	30: Manufacture of other transport equipment	3011 Building of ships and floating structures	✓	P	✓	✓	✓	✓	●●	●●	●●	●●●	●●
		3012 Building of pleasure and sporting boats	✓	✓	✓	✓	✓	✓	○	●●	●	●●●	●●
		3020 Manufacture of railway locomotives and rolling stock	✓	✓			✓	✓	●●	●●		●●●	●●
		3030 Manufacture of air and spacecraft and related machinery	✓	✓			✓	✓	●●	●●		●●●	●●
		3040 Manufacture of military fighting vehicles	✓	✓			✓	✓	○	●●●		●	●
		3091 Manufacture of motorcycles	✓	✓			✓	✓	○	●●●		●●●	●●
		3092 Manufacture of bicycles and invalid carriages	✓	✓			✓	✓	●●	●●●		●●●	●●
		3099 Manufacture of other transport equipment n.e.c.	✓	✓			✓	✓	●●	●●●		●●●	●●
	31: Manufacture of furniture	3100 Manufacture of furniture	✓	✓			✓	P	●●	●●●		●●	●●
	32: Other manufacturing	3211 Manufacture of jewellery and related articles	✓	✓	P	P	✓	✓	○	●●●	●●	●●	●●
		3212 Manufacture of imitation jewellery and related articles	✓	✓	P	P	✓	✓	○	●	●	●●	●
		3220 Manufacture of musical instruments	✓	✓	P	P	✓	✓	●●	●●	○	●●	●●
		3230 Manufacture of sports goods	✓	✓	P	P	✓	✓	○	●●	●●	●●	●●
		3240 Manufacture of games and toys	✓	✓	P	P	✓	✓	●●	●●	●	●●	●●
		3250 Manufacture of medical and dental instruments and supplies	✓	✓			✓	P	●	●●		●●	●●
		3290 Other manufacturing n.e.c.	✓	✓			✓	✓	●●	●●		●●	●●
	33: Repair and installation of machinery and equipment	3315 Repair of transport equipment, except motor vehicles	✓	P	P	P	✓	P	●●	●●	●●	●●	●●

Short Reporting Sector List - Summary

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Covered? ✓ = Fully Covered, P = Partially Covered							Reporting Score ○ = Not Reported, ● = Low Reporting, ●● = Medium Reporting, ●●● = High Reporting				
Section	Division	Class	Australia	Canada	European Union	Kiev Protocol	Japan	United States	Australia	Canada	European Union	Japan	United States	
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply	3510 Electric power generation, transmission and distribution	✓	✓	P	P	✓	P	●●●	●●●	●●●	●●	●●●	
		3520 Manufacture of gas; distribution of gaseous fuels through mains	✓	P	P	P	✓		●●●	●●	●●	●		
		3530 Steam and air conditioning supply	✓	✓	P	P	✓	P	●●	●●	●●●	●●	●●	
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700 Sewerage	✓	✓	✓	✓	✓		●●●	●●●	●●●	●●●		
	38: Waste collection, treatment and disposal activities; materials recovery	3812 Collection of hazardous waste	✓	✓	✓	✓	✓	P	●●●	●●●	●●	●●●	●●●	
		3821 Treatment and disposal of non-hazardous waste	✓	✓	✓	✓	✓	P	●●●	●●●	●●●	●●●	●●●	
		3822 Treatment and disposal of hazardous waste	✓	✓	✓	✓	✓	P	●●●	●●●	●●●	●●●	●●●	
	39: Remediation activities and other waste management services	3900 Remediation activities and other waste management services	✓	✓	P	P	✓		●●	●●	●●●	●●●		
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661 Wholesale of solid, liquid and gaseous fuels and related products	P	P	P	P	✓	P	●●●	●●	●●	●●	●●	
J: Information and communication	58: Publishing activities	5811 Book publishing	P	✓	✓	✓		P	○	●	○		●	
		5812 Publishing of directories and mailing lists	P	✓	✓	✓		P	○	○	○		○	
		5813 Publishing of newspapers, journals and periodicals	P	✓	✓	✓		P	○	●	●●		●●	
		5819 Other publishing activities	P	✓	✓	✓		✓	○	●	●●		●●	
M: Professional, scientific and technical activities	72: Scientific research and development	7210 Research and experimental development on natural sciences and engineering	✓	P			✓	P	●	●●●		●●	●●	
S: Other service activities	96: Other personal service activities	9601 Washing and (dry-) cleaning of textile and fur products	✓	✓	✓	✓	✓		●●	●●	●●	●●		

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Australia - NPI				Canada - NPRI		
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
		0520 Mining of lignite	Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas	Yes	-	-	Partially	Facilities used exclusively for the drilling of oil and gas wells are exempt	-	
		07: Mining of metal ores	0710 Mining of iron ores	Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt
	0721 Mining of uranium and thorium ores		Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
	0729 Mining of other non-ferrous metal ores		Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
	08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
		0891 Mining of chemical and fertilizer minerals	Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
		0899 Other mining and quarrying n.e.c.	Yes	-	-	Yes	-	Pits and quarries where annual production < 500,000 tons are exempt	
		C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	Yes	-	-	Yes	-
	1020 Processing and preserving of fish, crustaceans and molluscs			Yes	-	-	Yes	-	-
	1030 Processing and preserving of fruit and vegetables			Yes	-	-	Yes	-	-
	1040 Manufacture of vegetable and animal oils and fats			Yes	-	-	Yes	-	-
1050 Manufacture of dairy products	Yes			-	-	Yes	-	-	
1061 Manufacture of grain mill products	Yes			-	-	Yes	-	-	
1062 Manufacture of starches and starch products	Yes			-	-	Yes	-	-	
1071 Manufacture of bakery products	Yes			-	-	Yes	-	-	
1072 Manufacture of sugar	Yes			-	-	Partially	If only source of category 1-3 chemicals is from growing, harvesting, or management of renewable natural resources, the facility is not required to report category 1-3 chemicals	-	
1073 Manufacture of cocoa, chocolate and sugar confectionery	Yes			-	-	Yes	-	-	

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Australia - NPI				Canada - NPRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products	Yes	-	-	Yes	-	-	
		1075 Manufacture of prepared meals and dishes	Yes	-	-	Yes	-	-	
		1079 Manufacture of other food products n.e.c.	Yes	-	-	Yes	-	-	
		1080 Manufacture of prepared animal feeds	Yes	-	-	Yes	-	-	
	11: Manufacture of beverages	1101 Distilling, rectifying and blending of spirits	Yes	-	-	Yes	-	-	
		1102 Manufacture of wines	Yes	-	-	Yes	-	-	
		1103 Manufacture of malt liquors and malt	Yes	-	-	Yes	-	-	
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	Yes	-	-	Yes	-	-	
	12: Manufacture of tobacco products	1200 Manufacture of tobacco products	Yes	-	-	Yes	-	-	
	13: Manufacture of textiles	1311 Preparation and spinning of textile fibres	Yes	-	-	Yes	-	-	
		1312 Weaving of textiles	Yes	-	-	Yes	-	-	
		1313 Finishing of textiles	Yes	-	-	Yes	-	-	
		1391 Manufacture of knitted and crocheted fabrics	Yes	-	-	Yes	-	-	
		1392 Manufacture of made-up textile articles, except apparel	Yes	-	-	Yes	-	-	
		1393 Manufacture of carpets and rugs	Yes	-	-	Yes	-	-	
		1394 Manufacture of cordage, rope, twine and netting	Yes	-	-	Yes	-	-	
		1399 Manufacture of other textiles n.e.c.	Yes	-	-	Yes	-	-	
	14: Manufacture of wearing apparel	1410 Manufacture of wearing apparel, except fur apparel	Yes	-	-	Yes	-	-	
		1420 Manufacture of articles of fur	Yes	-	-	Yes	-	-	
		1430 Manufacture of knitted and crocheted apparel	Yes	-	-	Yes	-	-	
	15: Manufacture of leather and related products	1511 Tanning and dressing of leather; dressing and dyeing of fur	Yes	-	-	Yes	-	-	
		1512 Manufacture of luggage, handbags and the like, saddlery and harness	Yes	-	-	Yes	-	-	
		1520 Manufacture of footwear	Yes	-	-	Yes	-	-	
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1610 Sawmilling and planing of wood	Yes	-	-	Partially	If only source of category 1-3 chemicals is from growing, harvesting, or management of renewable natural resources, the facility is not required to report category 1-3 chemicals	No employee threshold applies to wood preservation by means of heat or pressure treatment. Includes the manufacture, blending, or reformation of wood preservatives for that purpose	
		1621 Manufacture of veneer sheets and wood-based panels	Yes	-	-	Yes	-	-	
		1622 Manufacture of builders' carpentry and joinery	Yes	-	-	Yes	-	-	
		1623 Manufacture of wooden containers	Yes	-	-	Yes	-	-	

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Australia - NPI				Canada - NPRI			
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
		1629 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	Yes	-	-	Yes	-	-	No employee threshold applies to terminal operations, which include: use of storage tanks to store/transfer crude oil, artificial crude, or intermediates of fuel products and primary distribution installations receiving gasoline by pipeline, railcar, marine vessel, or directly from refinery. Terminal operations do not include bulk plants or service stations.	
17: Manufacture of paper and paper products		1701 Manufacture of pulp, paper and paperboard	Yes	-	-	Yes	-	-		
		1702 Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	Yes	-	-	Yes	-	-		
		1709 Manufacture of other articles of paper and paperboard	Yes	-	-	Yes	-	-		
18: Printing and reproduction of recorded media		1811 Printing	Yes	-	-	Yes	-	-		
		1812 Service activities related to printing	Yes	-	-	Yes	-	-		
19: Manufacture of coke and refined petroleum products		1910 Manufacture of coke oven products	Yes	-	-	Yes	-	-		
		1920 Manufacture of refined petroleum products	Yes	-	-	Yes	If only source of category 1-3 chemicals is distribution.	No employee threshold applies to terminal operations, which		
20: Manufacture of chemicals and chemical products		2011 Manufacture of basic chemicals	Yes	-	-	Yes	-	-		
		2012 Manufacture of fertilizers and nitrogen compounds	Yes	-	-	Yes	-	-		
		2013 Manufacture of plastics and synthetic rubber in primary forms	Yes	-	-	Yes	-	-		
		2021 Manufacture of pesticides and other agrochemical products	Yes	-	-	Yes	-	-		
		2022 Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Yes	-	-	Yes	-	-		
		2023 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Yes	-	-	Yes	-	-		
		2029 Manufacture of other chemical products n.e.c.	Yes	-	-	Yes	-	-		
	2030 Manufacture of man-made fibres	Yes	-	-	Yes	-	-			
21: Manufacture of basic pharmaceutical products and pharmaceutical preparations		2100 Manufacture of pharmaceuticals, medicinal chemical and botanical products	Yes	-	-	Yes	-	-		

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Australia - NPI				Canada - NPRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
22: Manufacture of rubber and plastics products	22: Manufacture of rubber and plastics products	2211 Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	Yes	-	-	Yes	-	-	
		2219 Manufacture of other rubber products	Yes	-	-	Yes	-	-	
		2220 Manufacture of plastics products	Yes	-	-	Yes	-	-	
	23: Manufacture of other non-metallic mineral products	23: Manufacture of other non-metallic mineral products	2310 Manufacture of glass and glass products	Yes	-	-	Yes	-	-
			2391 Manufacture of refractory products	Yes	-	-	Yes	-	-
			2392 Manufacture of clay building materials	Yes	-	-	Yes	-	-
			2393 Manufacture of other porcelain and ceramic products	Yes	-	-	Yes	-	-
			2394 Manufacture of cement, lime and plaster	Yes	-	-	Yes	-	-
			2395 Manufacture of articles of concrete, cement and plaster	Yes	-	-	Yes	-	-
			2396 Cutting, shaping and finishing of stone	Yes	-	-	Partially	If only source of category 1-3 chemicals is retail sale of the chemical, the facility is not required to report category 1-3 chemicals	-
2399 Manufacture of other non-metallic mineral products n.e.c.	Yes	-	-	Yes	-	-			
24: Manufacture of basic metals	24: Manufacture of basic metals	2410 Manufacture of basic iron and steel	Yes	-	-	Yes	-	-	
		2420 Manufacture of basic precious and other non-ferrous metals	Partially	All facilities required to report except for scrap metal handling facilities trading in metal that are not engaged in the reprocessing of batteries or the smelting of metal	-	Yes	-	-	
		2431 Casting of iron and steel	Yes	-	-	Yes	-	-	
		2432 Casting of non-ferrous metals	Yes	-	-	Yes	-	-	
		2511 Manufacture of structural metal products	Yes	-	-	Yes	-	-	
25: Manufacture of fabricated metal products, except machinery and equipment	25: Manufacture of fabricated metal products, except machinery and equipment	2512 Manufacture of tanks, reservoirs and containers of metal	Yes	-	-	Yes	-	-	
		2513 Manufacture of steam generators, except central heating hot water boilers	Yes	-	-	Yes	-	-	
		2520 Manufacture of weapons and ammunition	Yes	-	-	Yes	-	-	
		2591 Forging, pressing, stamping and roll-forming of metal; powder metallurgy	Yes	-	-	Yes	-	-	
		2592 Treatment and coating of metals; machining	Yes	-	-	Yes	-	-	
		2593 Manufacture of cutlery, hand tools and general hardware	Yes	-	-	Yes	-	-	
		2599 Manufacture of other fabricated metal products n.e.c.	Yes	-	-	Yes	-	-	
26: Manufacture of computer, electronic and optical products	26: Manufacture of computer, electronic and optical products	2610 Manufacture of electronic components and boards	Yes	-	-	Yes	-	-	
		2620 Manufacture of computers and peripheral equipment	Yes	-	-	Yes	-	-	
		2630 Manufacture of communication equipment	Yes	-	-	Yes	-	-	

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Section	Division	ISIC Sector Class	Australia - NPI			Canada - NPRI		
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold
		2640 Manufacture of consumer electronics	Yes	-	-	Yes	-	-
		2651 Manufacture of measuring, testing, navigating and control equipment	Yes	-	-	Yes	-	-
		2652 Manufacture of watches and clocks	Yes	-	-	Yes	-	-
		2660 Manufacture of irradiation, electromedical and electrotherapeutic equipment	Yes	-	-	Yes	-	-
		2670 Manufacture of optical instruments and photographic equipment	Yes	-	-	Yes	-	-
		2680 Manufacture of magnetic and optical media	Yes	-	-	Yes	-	-
	27: Manufacture of electrical equipment	2710 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	Yes	-	-	Yes	-	-
		2720 Manufacture of batteries and accumulators	Yes	-	-	Yes	-	-
		2731 Manufacture of fibre optic cables	Yes	-	-	Yes	-	-
		2732 Manufacture of other electronic and electric wires and cables	Yes	-	-	Yes	-	-
		2733 Manufacture of wiring devices	Yes	-	-	Yes	-	-
		2740 Manufacture of electric lighting equipment	Yes	-	-	Yes	-	-
		2750 Manufacture of domestic appliances	Yes	-	-	Yes	-	-
		2790 Manufacture of other electrical equipment	Yes	-	-	Yes	-	-
	28: Manufacture of machinery and equipment n.e.c.	2811 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	Yes	-	-	Yes	-	-
		2812 Manufacture of fluid power equipment	Yes	-	-	Yes	-	-
		2813 Manufacture of other pumps, compressors, taps and valves	Yes	-	-	Yes	-	-
		2814 Manufacture of bearings, gears, gearing and driving elements	Yes	-	-	Yes	-	-
		2815 Manufacture of ovens, furnaces and furnace burners	Yes	-	-	Yes	-	-
		2816 Manufacture of lifting and handling equipment	Yes	-	-	Yes	-	-
		2817 Manufacture of office machinery and equipment (except computers and peripheral equipment)	Yes	-	-	Yes	-	-
		2818 Manufacture of power-driven hand tools	Yes	-	-	Yes	-	-
		2819 Manufacture of other general-purpose machinery	Yes	-	-	Yes	-	-
		2821 Manufacture of agricultural and forestry machinery	Yes	-	-	Yes	-	-
		2822 Manufacture of metal-forming machinery and machine tools	Yes	-	-	Yes	-	-
		2823 Manufacture of machinery for metallurgy	Yes	-	-	Yes	-	-
		2824 Manufacture of machinery for mining, quarrying and construction	Yes	-	-	Yes	-	-
		2825 Manufacture of machinery for food, beverage and tobacco processing	Yes	-	-	Yes	-	-
		2826 Manufacture of machinery for textile, apparel and leather production	Yes	-	-	Yes	-	-

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ISIC Sector			Australia - NPI			Canada - NPRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold
		2829 Manufacture of other special-purpose machinery	Yes	-	-	Yes	-	-
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	Yes	-	-	Yes	-	-
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	Yes	-	-	Partially	If only source of category 1-3 chemicals is maintenance and repair of vehicles (automobiles, trucks, locomotives, ships or aircraft), except painting and stripping of vehicles or their components, or the rebuilding or remanufacturing of vehicle components, the facility is not required to report category 1-3 chemicals	-
		2930 Manufacture of parts and accessories for motor vehicles	Yes	-	-	Yes	-	-
	30: Manufacture of other transport equipment	3011 Building of ships and floating structures	Yes	-	-	Partially	If only source of category 1-3 chemicals is maintenance and repair of vehicles (automobiles, trucks, locomotives, ships or aircraft), except painting and stripping of vehicles or their components, or the rebuilding or remanufacturing of vehicle components, the facility is not required to report category 1-3 chemicals	-
		3012 Building of pleasure and sporting boats	Yes	-	-	Yes	-	-
		3020 Manufacture of railway locomotives and rolling stock	Yes	-	-	Yes	-	-
		3030 Manufacture of air and spacecraft and related machinery	Yes	-	-	Yes	-	-
		3040 Manufacture of military fighting vehicles	Yes	-	-	Yes	-	-
		3091 Manufacture of motorcycles	Yes	-	-	Yes	-	-
		3092 Manufacture of bicycles and invalid carriages	Yes	-	-	Yes	-	-
		3099 Manufacture of other transport equipment n.e.c.	Yes	-	-	Yes	-	-
	31: Manufacture of furniture	3100 Manufacture of furniture	Yes	-	-	Yes	-	-
	32: Other manufacturing	3211 Manufacture of jewellery and related articles	Yes	-	-	Yes	-	-

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Section	Division	ISIC Sector	Australia - NPI				Canada - NPRI			
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
		3212	Manufacture of imitation jewellery and related articles	Yes	-	-	Yes	-	-	
		3220	Manufacture of musical instruments	Yes	-	-	Yes	-	-	
		3230	Manufacture of sports goods	Yes	-	-	Yes	-	-	
		3240	Manufacture of games and toys	Yes	-	-	Yes	-	-	
		3250	Manufacture of medical and dental instruments and supplies	Yes	-	-	Yes	-	-	
		3290	Other manufacturing n.e.c.	Yes	-	-	Yes	-	-	
	33: Repair and installation of machinery and equipment									
		3315	Repair of transport equipment, except motor vehicles	Yes	-	-	Partially	If only source of category 1-3 chemicals is maintenance and repair of vehicles (automobiles, trucks, locomotives, ships or aircraft), except painting and stripping of vehicles or their components, the rebuilding or remanufacturing of vehicle components, or retail sale of the chemical, the facility is not required to report category 1-3 chemicals	-	
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply	3510	Electric power generation, transmission and distribution	Yes	-	-	Yes	-	-	
		3520	Manufacture of gas; distribution of gaseous fuels through mains	Yes	-	-	Partially	If only source of category 1-3 chemicals is distribution, storage or retail sale of fuels, except as part of terminal operations, the facility is not required to report category 1-3 chemicals	No employee threshold applies to natural gas transmission and distribution pipeline installations	
		3530	Steam and air conditioning supply	Yes	-	-	Yes	-	-	
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700	Sewerage	Yes	-	-	Yes	-	No employee threshold applies to any amount of hazardous waste or sewage sludge incineration	
	38: Waste collection, treatment and disposal activities; materials recovery	3812	Collection of hazardous waste	Yes	-	-	Yes	-	-	
		3821	Treatment and disposal of non-hazardous waste	Yes	-	-	Yes	-	-	
		3822	Treatment and disposal of hazardous waste	Yes	-	-	Yes	-	No employee threshold applies to any amount of hazardous waste or sewage sludge incineration	

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ISIC Sector			Australia - NPI				Canada - NPRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
	39: Remediation activities and other waste management services	3900	Remediation activities and other waste management services	Yes	-	-	Yes	-	
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661	Wholesale of solid, liquid and gaseous fuels and related products	Partially	Petroleum retailing facilities engaged in the retail sale of fuels are exempt	-	Partially	If only source of category 1-3 chemicals is retail sale of the chemical, the facility is not required to report category 1-3 chemicals	
J: Information and communication	58: Publishing activities	5811	Book publishing	Partially	Facility required to report unless engaged solely in internet publishing and broadcasting	-	Yes	-	
		5812	Publishing of directories and mailing lists	Partially	Facility required to report unless engaged solely in internet publishing and broadcasting	-	Yes	-	
		5813	Publishing of newspapers, journals and periodicals	Partially	Facility required to report unless engaged solely in internet publishing and broadcasting	-	Yes	-	
		5819	Other publishing activities	Partially	Facility required to report unless engaged solely in internet publishing and broadcasting	-	Yes	-	
M: Professional, scientific and technical activities	72: Scientific research and development	7210	Research and experimental development on natural sciences and engineering	Yes	-	-	Partially	If only source of category 1-3 chemicals is research and testing activities, facility not required to report category 1-3 chemicals	
S: Other service activities	96: Other personal service activities	9601	Washing and (dry-) cleaning of textile and fur products	Yes	-	Limited to dry cleaners with 20 or more employees	Yes	-	

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Section	Division	ISIC Sector		EU - E-PRTR			Kiev Protocol		
		Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
		0520 Mining of lignite	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas	No	-	-	No	-	-	
	07: Mining of metal ores	0710 Mining of iron ores	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
		0721 Mining of uranium and thorium ores	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
		0729 Mining of other non-ferrous metal ores	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
	08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
		0891 Mining of chemical and fertilizer minerals	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	
		0899 Other mining and quarrying n.e.c.	Partially	Facilities required to report if engaged in underground mining and related operations	-	Partially	Facilities required to report if engaged in underground mining and related operations	-	

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ISIC Sector			EU - E-PRTR				Kiev Protocol		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	Partially	Required to report if facility is a slaughterhouse, or if engaged in treatment and processing intended for the production of food and beverage products from animal raw materials (other than milk) or vegetable raw materials	Food processing centers limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials. Slaughterhouses limited to facilities with a carcass production capacity of 50 tonnes per day.	Partially	Required to report if facility is a slaughterhouse, or if engaged in treatment and processing intended for the production of food and beverage products from animal raw materials (other than milk) or vegetable raw materials	Food processing centers limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials. Slaughterhouses limited to facilities with a carcass production capacity of 50 tonnes per day.	
		1020 Processing and preserving of fish, crustaceans and molluscs	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	
		1030 Processing and preserving of fruit and vegetables	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	

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Section	Division	ISIC Sector Class	EU - E-PRTR			Kiev Protocol		
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold
		1040 Manufacture of vegetable and animal oils and fats	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials
		1050 Manufacture of dairy products	Partially	Facilities required to report if engaged in the treatment and processing of milk	Limited to facilities with a capacity to receive 200 tonnes of milk per day (average value on an annual basis)	Partially	Facilities required to report if engaged in the treatment and processing of milk	Limited to facilities with a capacity to receive 200 tonnes of milk per day (average value on an annual basis)
		1061 Manufacture of grain mill products	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials
		1062 Manufacture of starches and starch products	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials
		1071 Manufacture of bakery products	No	-	-	No	-	-

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ISIC Sector			EU - E-PRTR				Kiev Protocol		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		1072 Manufacture of sugar	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	
		1073 Manufacture of cocoa, chocolate and sugar confectionery	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Yes	-	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	
		1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products	No	-	-	No	-	-	
		1075 Manufacture of prepared meals and dishes	No	-	-	No	-	-	
		1079 Manufacture of other food products n.e.c.	Partially	Facilities required to report if engaged in the treatment and processing of milk	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	Partially	Facilities required to report if engaged in the treatment and processing of milk	Limited to facilities with a finished product production capacity of 75 tonnes per day of products from animal raw materials (other than milk) or a finished product production capacity of 300 tonnes per day (average value on a quarterly basis) from vegetable raw materials	
		1080 Manufacture of prepared animal feeds	No	-	-	No	-	-	
11: Manufacture of beverages		1101 Distilling, rectifying and blending of spirits	No	-	-	No	-	-	
		1102 Manufacture of wines	No	-	-	No	-	-	
		1103 Manufacture of malt liquors and malt	No	-	-	No	-	-	
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	No	-	-	No	-	-	
12: Manufacture of tobacco products		1200 Manufacture of tobacco products	No	-	-	No	-	-	
13: Manufacture of textiles		1311 Preparation and spinning of textile fibres	Yes	-	-	Yes	-	-	
		1312 Weaving of textiles	No	-	-	No	-	-	

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Section	Division	ISIC Sector Class	EU - E-PRTR				Kiev Protocol			
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
		1313 Finishing of textiles	No	-	-	No	-	-	-	
		1391 Manufacture of knitted and crocheted fabrics	No	-	-	No	-	-	-	
		1392 Manufacture of made-up textile articles, except apparel	No	-	-	No	-	-	-	
		1393 Manufacture of carpets and rugs	No	-	-	No	-	-	-	
		1394 Manufacture of cordage, rope, twine and netting	No	-	-	No	-	-	-	
		1399 Manufacture of other textiles n.e.c.	Partially	Facility required to report if it involves installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	-	Partially	Facility required to report if it involves installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	-	-	
	14: Manufacture of wearing apparel	1410 Manufacture of wearing apparel, except fur apparel	No	-	-	No	-	-	-	
		1420 Manufacture of articles of fur	No	-	-	No	-	-	-	
		1430 Manufacture of knitted and crocheted apparel	No	-	-	No	-	-	-	
	15: Manufacture of leather and related products	1511 Tanning and dressing of leather; dressing and dyeing of fur	Yes	-	Limited to facilities with a treatment capacity of 12 tonnes of finished product per day	Yes	-	Limited to facilities with a treatment capacity of 12 tonnes of finished product per day	-	
		1512 Manufacture of luggage, handbags and the like, saddlery and harness	No	-	-	No	-	-	-	
		1520 Manufacture of footwear	No	-	-	No	-	-	-	
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1610 Sawmilling and planing of wood	Yes	-	Limited to facilities with a production capacity of 50 m3 per day	Yes	-	Limited to facilities with a production capacity of 50 m3 per day	-	
		1621 Manufacture of veneer sheets and wood-based panels	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	-	
		1622 Manufacture of builders' carpentry and joinery	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	-	
		1623 Manufacture of wooden containers	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	-	
		1629 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	-	
	17: Manufacture of paper and paper products	1701 Manufacture of pulp, paper and paperboard	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	-	

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Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		1702	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	
		1709	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	Yes	-	Limited to facilities with a production capacity of 20 tonnes per day	
	18: Printing and reproduction of recorded media	1811	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	
		1812	No	-	-	No	-	-	
	19: Manufacture of coke and refined petroleum products	1910	Yes	-	-	Yes	-	-	
		1920	Yes	-	-	Yes	-	-	
	20: Manufacture of chemicals and chemical products	2011	Yes	-	-	Yes	-	-	
		2012	Yes	-	-	Yes	-	-	
		2013	Yes	-	-	Yes	-	-	
		2021	Yes	-	-	Yes	-	-	
		2022	Yes	-	-	Yes	-	-	
		2023	Yes	-	-	Yes	-	-	
		2029	Partially	Facilities required to report if engaged in the manufacture of basic inorganic chemicals, or in the manufacture of explosives and pyrotechnic products	-	Partially	Facilities required to report if engaged in the manufacture of basic inorganic chemicals, or in the manufacture of explosives and pyrotechnic products	-	
		2030	Yes	-	-	Yes	-	-	
	21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	2100	Yes	-	-	Yes	-	-	
	22: Manufacture of rubber and plastics products	2211	Yes	-	-	Yes	-	-	
		2219	Yes	-	-	Yes	-	-	
		2220	Yes	-	-	Yes	-	-	
	23: Manufacture of other non-metallic mineral products	2310	Partially	Facilities required to report limited to installations for the manufacture of glass, including glass fibre	Limited to facilities with a melting capacity of 20 tonnes per day	Partially	Facilities required to report limited to installations for the manufacture of glass, including glass fibre	Limited to facilities with a melting capacity of 20 tonnes per day	

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ISIC Sector			EU - E-PRTR				Kiev Protocol		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		2391 Manufacture of refractory products	Yes	-	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	Yes	-	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	
		2392 Manufacture of clay building materials	Yes	-	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	Yes	-	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	
		2393 Manufacture of other porcelain and ceramic products	Yes	-	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	Yes	-	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	
		2394 Manufacture of cement, lime and plaster	Yes	-	Limited to facilities with a production capacity of 500 tonnes per day of cement clinker in rotary kilns; with a production capacity of 50 tonnes per day of lime in rotary kilns; or with a production capacity of 50 tonnes per day of cement clinker or lime in other furnaces.	Yes	-	Limited to facilities with a production capacity of 500 tonnes per day of cement clinker in rotary kilns; with a production capacity of 50 tonnes per day of lime in rotary kilns; or with a production capacity of 50 tonnes per day of cement clinker or lime in other furnaces.	
		2395 Manufacture of articles of concrete, cement and plaster	No	-	-	No	-	-	
		2396 Cutting, shaping and finishing of stone	No	-	-	No	-	-	
		2399 Manufacture of other non-metallic mineral products n.e.c.	Partially	Facilities required to report limited to installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	Partially	Facilities required to report limited to installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain	Limited to facilities with a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3	

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			EU - E-PRTR				Kiev Protocol		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
	24: Manufacture of basic metals								
		2410 Manufacture of basic iron and steel	Partially	Facilities required to report if they include ferrous metal foundries, and/or installations for the processing of ferrous metals: hot rolling mills; smitheries with hammers; or application of protective fused metal coats	Limited to ferrous metal foundries with a production capacity of 20 tonnes per day; hot rolling mills with capacity of 20 tonnes of crude steel per hour; smitheries an energy of 50 kilojoules per hammer, where the calorific power used exceeds 20 MW; and applications of protective fused metal coats with an input of 2 tonnes of crude steel per hour.	Partially	Facilities required to report if they include ferrous metal foundries, and/or installations for the processing of ferrous metals: hot rolling mills; smitheries with hammers; or application of protective fused metal coats	Limited to ferrous metal foundries with a production capacity of 20 tonnes per day; hot rolling mills with capacity of 20 tonnes of crude steel per hour; smitheries an energy of 50 kilojoules per hammer, where the calorific power used exceeds 20 MW; and applications of protective fused metal coats with an input of 2 tonnes of crude steel per hour.	
		2420 Manufacture of basic precious and other non-ferrous metals	Yes	-	Facilities that conduct smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.) are limited to those facilities with a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals	Yes	-	Facilities that conduct smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.) are limited to those facilities with a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals	
		2431 Casting of iron and steel	Yes	-	Limited to hot rolling mills with capacity of 20 tonnes of crude steel per hour; smitheries an energy of 50 kilojoules per hammer, where the calorific power used exceeds 20 MW; and applications of protective fused metal coats with an input of 2 tonnes of crude steel per hour.	Yes	-	Limited to hot rolling mills with capacity of 20 tonnes of crude steel per hour; smitheries an energy of 50 kilojoules per hammer, where the calorific power used exceeds 20 MW; and applications of protective fused metal coats with an input of 2 tonnes of crude steel per hour.	

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Section	Division	ISIC Sector Class	EU - E-PRTR				Kiev Protocol		
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		2432 Casting of non-ferrous metals	Yes	-	Facilities that conduct smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.) are limited to those facilities with a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals	Yes	-	Facilities that conduct smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.) are limited to those facilities with a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals	
25: Manufacture of fabricated metal products, except machinery and equipment	2511	Manufacture of structural metal products	No	-	-	No	-	-	
	2512	Manufacture of tanks, reservoirs and containers of metal	No	-	-	No	-	-	
	2513	Manufacture of steam generators, except central heating hot water boilers	No	-	-	No	-	-	
	2520	Manufacture of weapons and ammunition	Partially	Facilities required to report limited to installations for the production on an industrial scale of explosives and pyrotechnic products	-	Partially	Facilities required to report limited to installations for the production on an industrial scale of explosives and pyrotechnic products	-	
	2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	No	-	-	No	-	-	
	2592	Treatment and coating of metals; machining	Partially	Facility required to report if it engages in the treatment and coating of metals	Limited to facilities that maintains a consumption capacity of 150 kg per hour or 200 tonnes per year	Partially	Facility required to report if it engages in the treatment and coating of metals	Limited to facilities that maintains a consumption capacity of 150 kg per hour or 200 tonnes per year	
	2593	Manufacture of cutlery, hand tools and general hardware	No	-	-	No	-	-	
	2599	Manufacture of other fabricated metal products n.e.c.	No	-	-	No	-	-	
26: Manufacture of computer, electronic and optical products	2610	Manufacture of electronic components and boards	No	-	-	No	-	-	
	2620	Manufacture of computers and peripheral equipment	No	-	-	No	-	-	
	2630	Manufacture of communication equipment	No	-	-	No	-	-	
	2640	Manufacture of consumer electronics	No	-	-	No	-	-	
	2651	Manufacture of measuring, testing, navigating and control equipment	No	-	-	No	-	-	
	2652	Manufacture of watches and clocks	No	-	-	No	-	-	
	2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	No	-	-	No	-	-	
	2670	Manufacture of optical instruments and photographic equipment	No	-	-	No	-	-	
	2680	Manufacture of magnetic and optical media	No	-	-	No	-	-	

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	EU - E-PRTR			Kiev Protocol				
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
27: Manufacture of electrical equipment		Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	No	-	-	No	-	-		
		2710 Manufacture of batteries and accumulators	No	-	-	No	-	-		
		2731 Manufacture of fibre optic cables	No	-	-	No	-	-		
		2732 Manufacture of other electronic and electric wires and cables	No	-	-	No	-	-		
		2733 Manufacture of wiring devices	No	-	-	No	-	-		
		2740 Manufacture of electric lighting equipment	No	-	-	No	-	-		
		2750 Manufacture of domestic appliances	No	-	-	No	-	-		
		2790 Manufacture of other electrical equipment	No	-	-	No	-	-		
		28: Manufacture of machinery and equipment n.e.c.		2811 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	No	-	-	No	-	-
				2812 Manufacture of fluid power equipment	No	-	-	No	-	-
2813 Manufacture of other pumps, compressors, taps and valves	No			-	-	No	-	-		
2814 Manufacture of bearings, gears, gearing and driving elements	No			-	-	No	-	-		
2815 Manufacture of ovens, furnaces and furnace burners	No			-	-	No	-	-		
2816 Manufacture of lifting and handling equipment	No			-	-	No	-	-		
2817 Manufacture of office machinery and equipment (except computers and peripheral equipment)	No			-	-	No	-	-		
2818 Manufacture of power-driven hand tools	No			-	-	No	-	-		
2819 Manufacture of other general-purpose machinery	No			-	-	No	-	-		
2821 Manufacture of agricultural and forestry machinery	No			-	-	No	-	-		
2822 Manufacture of metal-forming machinery and machine tools	No			-	-	No	-	-		
2823 Manufacture of machinery for metallurgy	No			-	-	No	-	-		
2824 Manufacture of machinery for mining, quarrying and construction	No			-	-	No	-	-		
2825 Manufacture of machinery for food, beverage and tobacco processing	No			-	-	No	-	-		
2826 Manufacture of machinery for textile, apparel and leather production	No			-	-	No	-	-		
2829 Manufacture of other special-purpose machinery	No			-	-	No	-	-		

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Section	Division	ISIC Sector Class	EU - E-PRTR				Kiev Protocol			
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	No	-	-	No	-	-		
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	No	-	-	No	-	-		
		2930 Manufacture of parts and accessories for motor vehicles	Partially	Facilities only required to report if engaged in the manufacture of asbestos based products	-	Partially	Facilities only required to report if engaged in the manufacture of asbestos based products	-		
30: Manufacture of other transport equipment		3011 Building of ships and floating structures	Yes	-	Limited to facilities with a capacity for ships 100 m long	Yes	-	Limited to facilities with a capacity for ships 100 m long		
		3012 Building of pleasure and sporting boats	Yes	-	Limited to facilities with a capacity for ships 100 m long	Yes	-	Limited to facilities with a capacity for ships 100 m long		
		3020 Manufacture of railway locomotives and rolling stock	No	-	-	No	-	-		
		3030 Manufacture of air and spacecraft and related machinery	No	-	-	No	-	-		
		3040 Manufacture of military fighting vehicles	No	-	-	No	-	-		
		3091 Manufacture of motorcycles	No	-	-	No	-	-		
		3092 Manufacture of bicycles and invalid carriages	No	-	-	No	-	-		
		3099 Manufacture of other transport equipment n.e.c.	No	-	-	No	-	-		
31: Manufacture of furniture		3100 Manufacture of furniture	No	-	-	No	-	-		
32: Other manufacturing		3211 Manufacture of jewellery and related articles	Partially	Not required to report if facility is engaged only in the striking of coins	Limited to facilities where the volume of surface treatment vats equals 30 m3	Partially	Not required to report if facility is engaged only in the striking of coins	Limited to facilities where the volume of surface treatment vats equals 30 m3		
		3212 Manufacture of imitation jewellery and related articles	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities where the volume of the treatment vats equals 30 m3	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities where the volume of the treatment vats equals 30 m3		

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ISIC Sector			EU - E-PRTR			Kiev Protocol		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold
		3220 Manufacture of musical instruments	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities where the volume of the treatment vats equals 30 m3	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities where the volume of the treatment vats equals 30 m3
		3230 Manufacture of sports goods	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year
		3240 Manufacture of games and toys	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Partially	Facilities required to report limited to installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year
		3250 Manufacture of medical and dental instruments and supplies	No	-	-	No	-	-
		3290 Other manufacturing n.e.c.	No	-	-	No	-	-
	33: Repair and installation of machinery and equipment	3315 Repair of transport equipment, except motor vehicles	Partially	Only required to report if facility engages in the building of, painting, or removal of paint from ships	Limited to facilities with a capacity for ships 100 m long	Partially	Only required to report if facility engages in the building of, painting, or removal of paint from ships	Limited to facilities with a capacity for ships 100 m long
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply	3510 Electric power generation, transmission and distribution	Partially	Facility only required to report if qualifies as a thermal power station, or if houses combustion installations	Limited to facilities with a heat input of 50 megawatts (MW)	Partially	Facility only required to report if qualifies as a thermal power station, or if houses combustion installations	Limited to facilities with a heat input of 50 megawatts (MW)

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Section	Division	ISIC Sector		EU - E-PRTR			Kiev Protocol		
		Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		3520	Manufacture of gas; distribution of gaseous fuels through mains	Partially	Facilities required to report limited to installations for gassification and liquefaction	-	Partially	Facilities required to report limited to installations for gassification and liquefaction	-
		3530	Steam and air conditioning supply	Partially	Facilities required to report limited to thermal power stations and other combustion installations	Limited to facilities with a heat input of 50 megawatts (MW)	Partially	Facilities required to report limited to thermal power stations and other combustion installations	Limited to facilities with a heat input of 50 megawatts (MW)
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700	Sewerage	Yes	-	For urban facilities, limited to facilities with a treatment capacity of 10 tonnes per day; for independent facilities, limited to facilities with a capacity of 100,000 population equivalents	Yes	-	For urban facilities, limited to facilities with a treatment capacity of 10 tonnes per day; for independent facilities, limited to facilities with a capacity of 100,000 population equivalents
	38: Waste collection, treatment and disposal activities; materials recovery	3812	Collection of hazardous waste	Yes	-	Limited to facilities receiving 10 tonnes per day	Yes	-	Limited to facilities receiving 10 tonnes per day
		3821	Treatment and disposal of non-hazardous waste	Yes	-	Limited to facilities with a capacity of 3 tonnes per hour	Yes	-	Limited to facilities with a capacity of 3 tonnes per hour
		3822	Treatment and disposal of hazardous waste	Yes	-	Limited to facilities receiving 10 tonnes per day	Yes	-	Limited to facilities receiving 10 tonnes per day
	39: Remediation activities and other waste management services	3900	Remediation activities and other waste management services	Partially	Facilities required to report limited to landfills (excluding landfills of inert waste and landfills, which were definitely closed before 16.7.2001 or for which the after-care phase required by the competent authorities according to Article 13 of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (3) has expired)	Limited to facilities receiving 10 tonnes per day or with a total capacity of 25,000 tonnes	Partially	Facilities required to report limited to landfills (excluding landfills of inert waste and landfills, which were definitely closed before 16.7.2001 or for which the after-care phase required by the competent authorities according to Article 13 of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (3) has expired)	Limited to facilities receiving 10 tonnes per day or with a total capacity of 25,000 tonnes
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661	Wholesale of solid, liquid and gaseous fuels and related products	Partially	Only required to report if facility engages in gassification and liquefaction	-	Partially	Only required to report if facility engages in gassification and liquefaction	-
J: Information and communication	58: Publishing activities	5811	Book publishing	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year

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ISIC Sector			EU - E-PRTR				Kiev Protocol		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		5812 Publishing of directories and mailing lists	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	
		5813 Publishing of newspapers, journals and periodicals	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	
		5819 Other publishing activities	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	
M: Professional, scientific and technical activities	72: Scientific research and development	7210 Research and experimental development on natural sciences and engineering	No	-	-	No	-	-	
S: Other service activities	96: Other personal service activities	9601 Washing and (dry-) cleaning of textile and fur products	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	Yes	-	Limited to facilities with a consumption capacity of 150 kg per hour or 200 tonnes per year	

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Section	Division	ISIC Sector		Japan - PRTR			USA - TRI		
		Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	No	-	-	Partially	Includes mining of anthracite coal, but not the extraction of crude petroleum or natural gas	-	
		0520 Mining of lignite	No	-	-	Yes	-	-	
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas	Yes	-	-	Partially	Reporting is only required for facilities that recover sulfur from natural gas	-	
		07: Mining of metal ores	0710 Mining of iron ores	Yes	-	All facilities required to report regardless of manufacture, processing and use threshold	No	-	-
			0721 Mining of uranium and thorium ores	Yes	-	All facilities required to report regardless of manufacture, processing and use threshold	Yes	-	-
	0729 Mining of other non-ferrous metal ores		Yes	-	All facilities required to report regardless of manufacture, processing and use threshold	Yes	-	-	
	08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	No	-	-	Partially	Reporting is only required for facilities operating without a mine or quarry and that are primarily engaged in beneficiating kaolin, clay, and nonmetallic minerals	-	
		0891 Mining of chemical and fertilizer minerals	No	-	-	Partially	Reporting is only required for facilities operating without a mine or quarry and that are primarily engaged in beneficiating chemical or fertilizer mineral raw materials	-	
		0899 Other mining and quarrying n.e.c.	No	-	-	Partially	Reporting is only required for facilities operating without a mine or quarry and that are primarily engaged in beneficiating clay, ceramic and refractory materials, and nonmetallic minerals	-	

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ISIC Sector			Japan - PRTR			USA - TRI				
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in custom slaughtering for individuals, and those engaged in the cutting up and resale of purchased fresh carcasses for the trade (including boxed beef) and in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard	-		
		1020 Processing and preserving of fish, crustaceans and molluscs	Yes	-	-	Yes	-	-		
		1030 Processing and preserving of fruit and vegetables	Yes	-	-	Yes	-	-		
		1040 Manufacture of vegetable and animal oils and fats	Yes	-	-	Yes	-	-		
		1050 Manufacture of dairy products	Yes	-	-	Yes	-	-		
		1061 Manufacture of grain mill products	Yes	-	-	Yes	-	-		
		1062 Manufacture of starches and starch products	Yes	-	-	Yes	-	-		
		1071 Manufacture of bakery products	Yes	-	-	Partially	All facilities required to report except for retail bakeries	-		
		1072 Manufacture of sugar	Yes	-	-	Yes	-	-		
		1073 Manufacture of cocoa, chocolate and sugar confectionery	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in the retail sale of candy, nuts, popcorn and other confections not for immediate consumption made on the premises	-		
		1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products	Yes	-	-	Yes	-	-		
		1075 Manufacture of prepared meals and dishes	Yes	-	-	Yes	-	-		
		1079 Manufacture of other food products n.e.c.	Yes	-	-	Yes	-	-		
		1080 Manufacture of prepared animal feeds	Yes	-	-	Partially	Reporting required for all facilities except those primarily engaged in custom grain grinding for animal feed	-		
		11: Manufacture of beverages	11: Manufacture of beverages	1101 Distilling, rectifying and blending of spirits	Yes	-	-	Yes	-	-
				1102 Manufacture of wines	Yes	-	-	Yes	-	-
				1103 Manufacture of malt liquors and malt	Yes	-	-	Yes	-	-

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ISIC Sector			Japan - PRTR				USA - TRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in bottling mineral or spirit water	-	
	12: Manufacture of tobacco products	1200 Manufacture of tobacco products	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in providing tobacco sheeting services	-	
	13: Manufacture of textiles	1311 Preparation and spinning of textile fibres	Yes	-	-	Yes	-	-	
		1312 Weaving of textiles	Yes	-	-	Yes	-	-	
		1313 Finishing of textiles	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in 1). converting broadwoven piece goods and broadwoven textiles, 2). converting narrow woven piece goods and narrow woven piece goods, 3). sponging fabric for tailors and dressmakers, 3). cloth cutting, winding, or bolting for the trade, or 4). embroidering on textile products.	-	
		1391 Manufacture of knitted and crocheted fabrics	Yes	-	-	Yes	-	-	
		1392 Manufacture of made-up textile articles, except apparel	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in making custom drapery and slip covers for retail sale	-	
		1393 Manufacture of carpets and rugs	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in binding carpets and rugs for the trade and carpet cutting and binding.	-	
		1394 Manufacture of cordage, rope, twine and netting	Yes	-	-	Yes	-	-	
		1399 Manufacture of other textiles n.e.c.	Yes	-	-	Yes	-	-	

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ISIC Sector			Japan - PRTR				USA - TRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
	14: Manufacture of wearing apparel						Reporting is required for all facilities except for custom tailors primarily engaged in making and selling men's and boys' suits, bridal gowns and dresses, and women's, misses', and girls' dresses cut and sewn from purchased fabric		
		1410 Manufacture of wearing apparel, except fur apparel	Yes	-	-	Partially	-	-	
		1420 Manufacture of articles of fur	Yes	-	-	Yes	-	-	
		1430 Manufacture of knitted and crocheted apparel	Yes	-	-	Yes	-	-	
	15: Manufacture of leather and related products								
		1511 Tanning and dressing of leather; dressing and dyeing of fur	Yes	-	-	Yes	-	-	
		1512 Manufacture of luggage, handbags and the like, saddlery and harness	Yes	-	-	Yes	-	-	
		1520 Manufacture of footwear	Yes	-	-	Yes	-	-	
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials								
		1610 Sawmilling and planing of wood	Yes	-	-	Yes	-	-	
		1621 Manufacture of veneer sheets and wood-based panels	Yes	-	-	Yes	-	-	
		1622 Manufacture of builders' carpentry and joinery	Yes	-	-	Yes	-	-	
		1623 Manufacture of wooden containers	Yes	-	-	Yes	-	-	
		1629 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	Yes	-	-	Yes	-	-	
	17: Manufacture of paper and paper products								
		1701 Manufacture of pulp, paper and paperboard	Yes	-	-	Yes	-	-	
		1702 Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	Yes	-	-	Yes	-	-	
		1709 Manufacture of other articles of paper and paperboard	Yes	-	-	Yes	-	-	
	18: Printing and reproduction of recorded media						Reporting is required for all facilities except for those primarily engaged in reproducing text, drawings, plans, maps, or other copy, by blueprinting, photocopying, mimeographing, or other methods of duplication other than printing or microfilming		
		1811 Printing	Partially	Mimeograph printers are exempt	-	Partially	-	-	
		1812 Service activities related to printing	Yes	-	-	Yes	-	-	
	19: Manufacture of coke and refined petroleum products								
		1910 Manufacture of coke oven products	Yes	-	-	Yes	-	-	
		1920 Manufacture of refined petroleum products	Yes	-	-	Yes	-	-	

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Japan - PRTR				USA - TRI			
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
20: Manufacture of chemicals and chemical products		2011 Manufacture of basic chemicals	Yes	-	-	Yes	-	-		
		2012 Manufacture of fertilizers and nitrogen compounds	Yes	-	-	Yes	-	-		
		2013 Manufacture of plastics and synthetic rubber in primary forms	Yes	-	-	Yes	-	-		
		2021 Manufacture of pesticides and other agrochemical products	Yes	-	-	Yes	-	-		
		2022 Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Yes	-	-	Yes	-	-		
		2023 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Yes	-	-	Yes	-	-		
		2029 Manufacture of other chemical products n.e.c.	Yes	-	-	Yes	-	-		
		2030 Manufacture of man-made fibres	Yes	-	-	Yes	-	-		
		21: Manufacture of basic pharmaceutical products and pharmaceutical preparations		2100 Manufacture of pharmaceuticals, medicinal chemical and botanical products	Yes	-	-	Yes	-	-
		22: Manufacture of rubber and plastics products		2211 Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in tire retreading	-
2219 Manufacture of other rubber products	Yes			-	-	Yes	-	-		
2220 Manufacture of plastics products	Yes			-	-	Yes	-	-		
23: Manufacture of other non-metallic mineral products		2310 Manufacture of glass and glass products	Yes	-	-	Yes	-	-		
		2391 Manufacture of refractory products	Yes	-	-	Yes	-	-		
		2392 Manufacture of clay building materials	Yes	-	-	Yes	-	-		
		2393 Manufacture of other porcelain and ceramic products	Yes	-	-	Yes	-	-		
		2394 Manufacture of cement, lime and plaster	Yes	-	-	Yes	-	-		
		2395 Manufacture of articles of concrete, cement and plaster	Yes	-	-	Yes	-	-		
		2396 Cutting, shaping and finishing of stone	Yes	-	-	Partially	Reporting required for all facilities except those primarily engaged in retail activities	-		
		2399 Manufacture of other non-metallic mineral products n.e.c.	Yes	-	-	Yes	-	-		
24: Manufacture of basic metals		2410 Manufacture of basic iron and steel	Yes	-	-	Yes	-	-		
		2420 Manufacture of basic precious and other non-ferrous metals	Yes	-	-	Yes	-	-		
		2431 Casting of iron and steel	Yes	-	-	Yes	-	-		
		2432 Casting of non-ferrous metals	Yes	-	-	Yes	-	-		

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		Japan - PRTR				USA - TRI			
		Class		Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold		
25: Manufacture of fabricated metal products, except machinery and equipment		2511	Manufacture of structural metal products	Yes	-	-	Yes	-	-		
		2512	Manufacture of tanks, reservoirs and containers of metal	Yes	-	-	Yes	-	-		
		2513	Manufacture of steam generators, except central heating hot water boilers	Yes	-	-	Yes	-	-		
		2520	Manufacture of weapons and ammunition	Yes	-	-	Yes	-	-		
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	Yes	-	-	Yes	-	-		
		2592	Treatment and coating of metals; machining	Yes	-	-	Yes	-	-		
		2593	Manufacture of cutlery, hand tools and general hardware	Yes	-	-	Yes	-	-		
		2599	Manufacture of other fabricated metal products n.e.c.	Yes	-	-	Yes	-	-		
		26: Manufacture of computer, electronic and optical products		2610	Manufacture of electronic components and boards	Yes	-	-	Yes	-	-
				2620	Manufacture of computers and peripheral equipment	Yes	-	-	Yes	-	-
				2630	Manufacture of communication equipment	Yes	-	-	Yes	-	-
				2640	Manufacture of consumer electronics	Yes	-	-	Yes	-	-
				2651	Manufacture of measuring, testing, navigating and control equipment	Yes	-	-	Yes	-	-
				2652	Manufacture of watches and clocks	Yes	-	-	Yes	-	-
2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment			Yes	-	-	Yes	-	-		
2670	Manufacture of optical instruments and photographic equipment			Yes	-	-	Yes	-	-		
27: Manufacture of electrical equipment		2680	Manufacture of magnetic and optical media	Yes	-	-	Yes	-	-		
		2710	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	Yes	-	-	Partially	Reporting is required for all facilities except for those primarily engaged in armature rewinding on a factory basis	-		
		2720	Manufacture of batteries and accumulators	Yes	-	-	Yes	-	-		
		2731	Manufacture of fibre optic cables	Yes	-	-	Yes	-	-		
		2732	Manufacture of other electronic and electric wires and cables	Yes	-	-	Yes	-	-		
		2733	Manufacture of wiring devices	Yes	-	-	Yes	-	-		
		2740	Manufacture of electric lighting equipment	Yes	-	-	Yes	-	-		
		2750	Manufacture of domestic appliances	Yes	-	-	Yes	-	-		
		2790	Manufacture of other electrical equipment	Yes	-	-	Yes	-	-		
		28: Manufacture of machinery and equipment n.e.c.		2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	Yes	-	-	Yes	-	-
2812	Manufacture of fluid power equipment			Yes	-	-	Yes	-	-		
2813	Manufacture of other pumps, compressors, taps and valves			Yes	-	-	Yes	-	-		
2814	Manufacture of bearings, gears, gearing and driving elements			Yes	-	-	Yes	-	-		

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Japan - PRTR			USA - TRI		
			Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold
		2815 Manufacture of ovens, furnaces and furnace burners	Yes	-	-	Yes	-	-
		2816 Manufacture of lifting and handling equipment	Yes	-	-	Yes	-	-
		2817 Manufacture of office machinery and equipment (except computers and peripheral equipment)	Yes	-	-	Yes	-	-
		2818 Manufacture of power-driven hand tools	Yes	-	-	Yes	-	-
		2819 Manufacture of other general-purpose machinery	Yes	-	-	Yes	-	-
		2821 Manufacture of agricultural and forestry machinery	Yes	-	-	Yes	-	-
		2822 Manufacture of metal-forming machinery and machine tools	Yes	-	-	Yes	-	-
		2823 Manufacture of machinery for metallurgy	Yes	-	-	Yes	-	-
		2824 Manufacture of machinery for mining, quarrying and construction	Yes	-	-	Yes	-	-
		2825 Manufacture of machinery for food, beverage and tobacco processing	Yes	-	-	Yes	-	-
		2826 Manufacture of machinery for textile, apparel and leather production	Yes	-	-	Yes	-	-
		2829 Manufacture of other special-purpose machinery	Yes	-	-	Yes	-	-
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	Yes	-	-	Yes	-	-
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	Yes	-	-	Partially	Reporting is required for all facilities except for those primarily engaged in automotive body, paint, and Interior Repair and Maintenance	-
		2930 Manufacture of parts and accessories for motor vehicles	Yes	-	-	Yes	-	-
	30: Manufacture of other transport equipment	3011 Building of ships and floating structures	Yes	-	-	Yes	-	-
		3012 Building of pleasure and sporting boats	Yes	-	-	Yes	-	-
		3020 Manufacture of railway locomotives and rolling stock	Yes	-	-	Yes	-	-
		3030 Manufacture of air and spacecraft and related machinery	Yes	-	-	Yes	-	-
		3040 Manufacture of military fighting vehicles	Yes	-	-	Yes	-	-
		3091 Manufacture of motorcycles	Yes	-	-	Yes	-	-
		3092 Manufacture of bicycles and invalid carriages	Yes	-	-	Yes	-	-
		3099 Manufacture of other transport equipment n.e.c.	Yes	-	-	Yes	-	-

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Japan - PRTR				USA - TRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
	31: Manufacture of furniture						Reporting is required for all facilities except those primarily engaged in the retail sale of household furniture and the manufacture of custom wood and upholstered household furniture, cabinets, and counter tops		
		3100 Manufacture of furniture	Yes	-	-	Partially		-	
	32: Other manufacturing								
		3211 Manufacture of jewellery and related articles	Yes	-	-	Yes	-	-	
		3212 Manufacture of imitation jewellery and related articles	Yes	-	-	Yes	-	-	
		3220 Manufacture of musical instruments	Yes	-	-	Yes	-	-	
		3230 Manufacture of sports goods	Yes	-	-	Yes	-	-	
		3240 Manufacture of games and toys	Yes	-	-	Yes	-	-	
		3250 Manufacture of medical and dental instruments and supplies	Yes	-	-	Partially	Reporting is required for all facilities except those primarily engaged in manufacturing orthopedic devices to prescription and eyeglasses and contact lenses to prescription for individuals in a retail environment and dental laboratories	-	
		3290 Other manufacturing n.e.c.	Yes	-	-	Yes	-	-	
	33: Repair and installation of machinery and equipment						Reporting is only required for facilities that are primarily engaged in repairing and servicing ships and boats		
		3315 Repair of transport equipment, except motor vehicles	Yes	-	-	Partially		-	
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply						Reporting is only required for facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce		
		3510 Electric power generation, transmission and distribution	Yes	-	-	Partially		-	
		3520 Manufacture of gas; distribution of gaseous fuels through mains	Yes	-	-	No	-	-	

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Japan - PRTR				USA - TRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
		3530 Steam and air conditioning supply	Yes	-	-	Partially	Reporting is only required for facilities engaged in providing combinations of electric, gas, and other services, not elsewhere classified, and that combust coal and/or oil for the purpose of generating power for distribution in commerce	-	
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700 Sewerage	Yes	-	Facilities are required to report regardless of manufacture, processing and use threshold. Additional thresholds pertaining to industrial waste facilities are listed in Annex 4.	No	-	-	
	38: Waste collection, treatment and disposal activities; materials recovery	3812 Collection of hazardous waste	Yes	-	Facilities are required to report regardless of manufacture, processing and use threshold. Additional thresholds pertaining to industrial waste facilities are listed in Annex 4.	Partially	Reporting is only required for facilities primarily engaged in solvent recovery services on a contract or fee basis	-	
		3821 Treatment and disposal of non-hazardous waste	Yes	-	Facilities are required to report regardless of manufacture, processing and use threshold. Additional thresholds pertaining to industrial waste facilities are listed in Annex 4.	Partially	Reporting is only required for facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 et seq.	-	
		3822 Treatment and disposal of hazardous waste	Yes	-	Facilities are required to report regardless of manufacture, processing and use threshold. Additional thresholds pertaining to industrial waste facilities are listed in Annex 4.	Partially	Reporting is only required for facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. 6921 et seq.	-	
	39: Remediation activities and other waste management services	3900 Remediation activities and other waste management services	Yes	-	Facilities are required to report regardless of manufacture, processing and use threshold. Additional thresholds pertaining to industrial waste facilities are listed in Annex 4.	No	-	-	

Short Reporting Sector List - Activity Caveats and Sector Specific Thresholds

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Japan - PRTR				USA - TRI		
Section	Division	Class	Covered?	Activity Caveat	Sector Specific Threshold	Covered?	Activity Caveat	Sector Specific Threshold	
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661 Wholesale of solid, liquid and gaseous fuels and related products	Yes	-	-	Partially	Reporting is only required if facility is primarily a petroleum bulk station or terminal	-	
J: Information and communication	58: Publishing activities	5811 Book publishing	No	-	-	Partially	Reporting is ONLY required for facilities primarily engaged in Internet book publishing	-	
		5812 Publishing of directories and mailing lists	No	-	-	Partially	Reporting is required for all facilities except for those primarily engaged in furnishing services for direct mail advertising including address list compilers, address list publishers, address list publishers and printing combined, business directory publishers, catalog of collections publishers, catalog of collections publishers and printing combined, mailing list compilers, directory compilers, and mailing list compiling services	-	
		5813 Publishing of newspapers, journals and periodicals	No	-	-	Partially	Reporting is only required for facilities primarily engaged in Internet newspaper publishing and Internet periodical publishing	-	
		5819 Other publishing activities	No	-	-	Yes	-	-	
M: Professional, scientific and technical activities	72: Scientific research and development	7210 Research and experimental development on natural sciences and engineering	Yes	-	-	Partially	Reporting is only required for facilities that are primarily engaged in guided missile and space vehicle engine and vehicle parts research and development	-	
S: Other service activities	96: Other personal service activities	9601 Washing and (dry-) cleaning of textile and fur products	Yes	-	-	No	-	-	

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Covered?	Australia - NPI			Covered?	Canada - NPRI		
				Facilities	Ave. Releases (kg/Facility)	Ave. Transfers (kg/Facility)		Facilities	Ave. Releases (kg/Facility)	Ave. Disposal (kg/Facility)
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	Yes	123	3,944,454	409,682	Yes	4,336	210,699	452
		0520 Mining of lignite	Yes	123	3,944,454	409,682	Yes	9	8,959,489	955
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas	Yes	117	915,394	791	Partially	4,324	206	0
		07: Mining of metal ores	0710 Mining of iron ores	Yes	46	3,404,458	507,153	Yes	9	18,731,562
	0721 Mining of uranium and thorium ores		Yes	17	1,265,693	15,057,082	Yes	15	6,656,543	0
	0729 Mining of other non-ferrous metal ores		Yes	148	1,927,037	9,699,661	Yes	92	3,661,651	47,335
	08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	Yes	141	230,485	263,904	Yes	187	4	0
		0891 Mining of chemical and fertilizer minerals	Yes	37	567,966	983,312	Yes	97	334,271	5
		0899 Other mining and quarrying n.e.c.	Yes	37	567,966	983,312	Yes	14	2,751,877	0
	C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	Yes	93	80,673	48,669	Yes	47	13,100
1020 Processing and preserving of fish, crustaceans and molluscs			Yes	1	44,481	0	Yes	2	0	0
1030 Processing and preserving of fruit and vegetables			Yes	62	73,059	12,411	Yes	77	13,744	376
1040 Manufacture of vegetable and animal oils and fats			Yes	12	44,932	23,241	Yes	15	8,785	0
1050 Manufacture of dairy products			Yes	52	80,341	17,931	Yes	47	32,425	0
1061 Manufacture of grain mill products			Yes	46	53,836	999	Yes	26	0	0
1062 Manufacture of starches and starch products			Yes	28	54,977	11,031	Yes	4	31,196	0
1071 Manufacture of bakery products			Yes	59	68,674	4,612	Yes	82	7,476	26
1072 Manufacture of sugar			Yes	25	1,600,352	7,057	Partially	4	72,597	35,459
1073 Manufacture of cocoa, chocolate and sugar confectionery			Yes	23	28,011	12,126	Yes	8	0	0
1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products		Yes	6	69,667	2,664	Yes	44	23,644	657	
1075 Manufacture of prepared meals and dishes		Yes	154	83,504	33,809	Yes	46	22,616	629	
1079 Manufacture of other food products n.e.c.		Yes	248	47,999	24,300	Yes	110	20,575	263	
1080 Manufacture of prepared animal feeds		Yes	32	11,546	1,310	Yes	90	87	0	
11: Manufacture of beverages		1101 Distilling, rectifying and blending of spirits	Yes	11	138,942	29,446	Yes	10	876	0
		1102 Manufacture of wines	Yes	162	25,596	28,725	Yes			
		1103 Manufacture of malt liquors and malt	Yes	27	55,543	136,064	Yes	13	2,717	0
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	Yes	15	11,822	5,466	Yes	6	346	24
12: Manufacture of tobacco products		1200 Manufacture of tobacco products	Yes	2	23,326	0	Yes	4	0	0
13: Manufacture of textiles		1311 Preparation and spinning of textile fibres	Yes	4	12,085	7,820	Yes	15	398	0
		1312 Weaving of textiles	Yes	1	4,062	0	Yes	1	0	0
		1313 Finishing of textiles	Yes	44	122,690	19,871	Yes	18	3,632	0
		1391 Manufacture of knitted and crocheted fabrics	Yes				Yes			
	1392 Manufacture of made-up textile articles, except apparel	Yes	8	11,886	1,892	Yes	22	412	15,706	
	1393 Manufacture of carpets and rugs	Yes	5	8,298	0	Yes	11	543	1	

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Australia - NPRI				Canada - NPRI			
Section	Division	Class	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Transfers (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Disposal (kg/Facility)
		1394 Manufacture of cordage, rope, twine and netting	Yes				Yes	9	663	1
		1399 Manufacture of other textiles n.e.c.	Yes	9	11,017	1,682	Yes	111	14,102	26,532
	14: Manufacture of wearing apparel	1410 Manufacture of wearing apparel, except fur apparel	Yes	20	29,131	689	Yes	91	16,910	27,141
		1420 Manufacture of articles of fur	Yes	5	31,712	91,301	Yes	2	0	0
		1430 Manufacture of knitted and crocheted apparel	Yes				Yes	1	0	0
	15: Manufacture of leather and related products	1511 Tanning and dressing of leather; dressing and dyeing of fur	Yes	5	31,712	91,301	Yes			
		1512 Manufacture of luggage, handbags and the like, saddlery and harness	Yes	5	31,712	91,301	Yes	81	18,924	30,492
		1520 Manufacture of footwear	Yes				Yes	4	0	5,383
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1610 Sawmilling and planing of wood	Yes	56	116,818	131	Partially	256	1,325	168
		1621 Manufacture of veneer sheets and wood-based panels	Yes	28	134,735	3,206	Yes	65	1,718	733
		1622 Manufacture of builders' carpentry and joinery	Yes	14	154,931	0	Yes	26	1,744	575
		1623 Manufacture of wooden containers	Yes	8	251,056	477	Yes	45	510	953
		1629 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	Yes	9	232,261	1,240	Yes	148	10,684	16,877
	17: Manufacture of paper and paper products	1701 Manufacture of pulp, paper and paperboard	Yes	22	389,547	8,244	Yes	118	45,264	7,083
		1702 Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	Yes	14	22,226	2,358	Yes	78	13,205	1,327
		1709 Manufacture of other articles of paper and paperboard	Yes	20	153,126	14,440	Yes	302	13,645	18,097
	18: Printing and reproduction of recorded media	1811 Printing	Yes	38	139,776	22,610	Yes	91	320	350
		1812 Service activities related to printing	Yes				Yes	2	1,455	6,776
	19: Manufacture of coke and refined petroleum products	1910 Manufacture of coke oven products	Yes	113	468,597	1,732	Yes	46	18,641	3,432
		1920 Manufacture of refined petroleum products	Yes	95	998,931	3,614	Yes	45	202,579	1,314,430
	20: Manufacture of chemicals and chemical products	2011 Manufacture of basic chemicals	Yes	214	332,898	93,239	Yes	243	63,719	15,487
		2012 Manufacture of fertilizers and nitrogen compounds	Yes	74	602,447	426,889	Yes	81	151,895	4,205
		2013 Manufacture of plastics and synthetic rubber in primary forms	Yes	11	153,226	4,739	Yes	33	19,539	6,131
		2021 Manufacture of pesticides and other agrochemical products	Yes	9	4,689	7,763	Yes	38	6,914	165
		2022 Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Yes	28	42,493	21,817	Yes	194	14,140	11,654
		2023 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Yes	15	6,484	20,462	Yes	284	16,929	20,573
		2029 Manufacture of other chemical products n.e.c.	Yes	121	58,405	7,449	Yes	295	19,805	14,813

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Covered?	Australia - NPI			Covered?	Canada - NPRI		
				Facilities	Ave. Releases (kg/Facility)	Ave. Transfers (kg/Facility)		Facilities	Ave. Releases (kg/Facility)	Ave. Disposal (kg/Facility)
		2030 Manufacture of man-made fibres	Yes	3	27,817	49	Yes	6	4,913	2
	21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	2100 Manufacture of pharmaceuticals, medicinal chemical and botanical products	Yes	72	253,725	280,969	Yes	75	27,659	12,760
	22: Manufacture of rubber and plastics products	2211 Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	Yes	3	24,397	1,494	Yes	7	6,804	18,347
		2219 Manufacture of other rubber products	Yes	23	29,815	919	Yes	126	14,175	21,431
		2220 Manufacture of plastics products	Yes	58	65,921	2,262	Yes	337	5,054	13,436
	23: Manufacture of other non-metallic mineral products	2310 Manufacture of glass and glass products	Yes	23	513,662	5,332	Yes	41	773,969	1,985
		2391 Manufacture of refractory products	Yes	11	54,954	1,245	Yes	14	597	0
		2392 Manufacture of clay building materials	Yes	44	265,209	1,055	Yes	15	557	0
		2393 Manufacture of other porcelain and ceramic products	Yes	11	54,954	1,245	Yes	1	0	0
		2394 Manufacture of cement, lime and plaster	Yes	33	1,032,568	40,954	Yes	45	150	364
		2395 Manufacture of articles of concrete, cement and plaster	Yes	34	138,436	3,033	Yes	251	126,447	511
		2396 Cutting, shaping and finishing of stone	Yes	11	258,111	9,069	Partially	25	1,269,189	3,221
		2399 Manufacture of other non-metallic mineral products n.e.c.	Yes	79	92,323	1,901	Yes	383	93,086	12,925
		24: Manufacture of basic metals	2410 Manufacture of basic iron and steel	Yes	36	8,124,778	259,850	Yes	152	120,475
	2420 Manufacture of basic precious and other non-ferrous metals		Partially	43	19,219,518	7,116,860	Yes	177	290,941	738,151
	2431 Casting of iron and steel		Yes	15	46,472	163,501	Yes	53	2,505	44,284
	2432 Casting of non-ferrous metals		Yes	9	18,001	4,183	Yes	28	2,010	24,720
	25: Manufacture of fabricated metal products, except machinery and equipment	2511 Manufacture of structural metal products	Yes	24	3,629	4,196	Yes	20	7	16,396
		2512 Manufacture of tanks, reservoirs and containers of metal	Yes	1	6,478	2,080	Yes	21	2	16,023
		2513 Manufacture of steam generators, except central heating hot water boilers	Yes	1	6,478	2,080	Yes	20	16	22,046
		2520 Manufacture of weapons and ammunition	Yes	6	1,029	1,599	Yes	90	16,988	32,070
		2591 Forging, pressing, stamping and roll-forming of metal; powder metallurgy	Yes	9	90,035	79,878	Yes	50	228	237,222
		2592 Treatment and coating of metals; machining	Yes	39	51,648	76,303	Yes	106	33,358	44,370
		2593 Manufacture of cutlery, hand tools and general hardware	Yes	10	1,650	960	Yes	104	16,035	30,318
		2599 Manufacture of other fabricated metal products n.e.c.	Yes	61	4,818,133	166,585	Yes	285	62,363	45,370
	26: Manufacture of computer, electronic and optical products	2610 Manufacture of electronic components and boards	Yes	8	12,478	161,426	Yes	13	4,697	25,902
		2620 Manufacture of computers and peripheral equipment	Yes				Yes	2	0	1,860
		2630 Manufacture of communication equipment	Yes	5	19,965	257,617	Yes	6	17	1,013
		2640 Manufacture of consumer electronics	Yes				Yes			
		2651 Manufacture of measuring, testing, navigating and control equipment	Yes	13	33,390	99,244	Yes	14	7	925

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			Australia - NPI				Canada - NPRI			
Section	Division	Class	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Transfers (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Disposal (kg/Facility)
		2652 Manufacture of watches and clocks	Yes	1	7	21	Yes	5	0	1,098
		2660 Manufacture of irradiation, electromedical and electrotherapeutic equipment	Yes	4	2,584	5	Yes	5	0	1,098
		2670 Manufacture of optical instruments and photographic equipment	Yes	3	256	7	Yes	5	182	21,924
		2680 Manufacture of magnetic and optical media	Yes				Yes	2	0	0
	27: Manufacture of electrical equipment	2710 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	Yes	5	19,965	257,617	Yes	16	0	30,804
		2720 Manufacture of batteries and accumulators	Yes	5	19,965	257,617	Yes	86	1,865	6,555
		2731 Manufacture of fibre optic cables	Yes	4	2	834	Yes	12	620	245,839
		2732 Manufacture of other electronic and electric wires and cables	Yes	3	0	1,106	Yes	55	15,499	98,284
		2733 Manufacture of wiring devices	Yes	38	63,238	34,565	Yes	3	56	17,186
		2740 Manufacture of electric lighting equipment	Yes				Yes	5	3,667	15,084
		2750 Manufacture of domestic appliances	Yes	2	7,923	12,018	Yes	6	1	26,288
		2790 Manufacture of other electrical equipment	Yes	10	10,940	129,143	Yes	32	375	64,313
	28: Manufacture of machinery and equipment n.e.c.	2811 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	Yes	42	65,008	3,511	Yes	15	120	51,058
		2812 Manufacture of fluid power equipment	Yes	6	1,029	1,599	Yes	5	0	56,808
		2813 Manufacture of other pumps, compressors, taps and valves	Yes	6	1,029	1,599	Yes	154	6,023	69,614
		2814 Manufacture of bearings, gears, gearing and driving elements	Yes				Yes	6	16	21,332
		2815 Manufacture of ovens, furnaces and furnace burners	Yes	5	19,965	257,617	Yes	11	3,674	7,339
		2816 Manufacture of lifting and handling equipment	Yes				Yes	27	787	11,848
		2817 Manufacture of office machinery and equipment (except computers and peripheral equipment)	Yes				Yes	82	17,818	7,346
		2818 Manufacture of power-driven hand tools	Yes	1	0	0	Yes	8	264	7,235
		2819 Manufacture of other general-purpose machinery	Yes	3	3,192	7	Yes	180	12,094	60,090
		2821 Manufacture of agricultural and forestry machinery	Yes				Yes	4	528	14,124
		2822 Manufacture of metal-forming machinery and machine tools	Yes	1	0	0	Yes	10	4,128	16,095
		2823 Manufacture of machinery for metallurgy	Yes	1	0	0	Yes	37	1,110	12,955
		2824 Manufacture of machinery for mining, quarrying and construction	Yes	1	55,510	0	Yes	9	2,361	720
		2825 Manufacture of machinery for food, beverage and tobacco processing	Yes	1	9,568	0	Yes	10	4,339	21,273
		2826 Manufacture of machinery for textile, apparel and leather production	Yes	1	9,568	0	Yes	89	17,711	29,960
		2829 Manufacture of other special-purpose machinery	Yes	6	57,174	344	Yes	13	3,195	12,483

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Section	Division	ISIC Sector Class	Covered?	Australia - NPI			Covered?	Canada - NPRI		
				Facilities	Ave. Releases (kg/Facility)	Ave. Transfers (kg/Facility)		Facilities	Ave. Releases (kg/Facility)	Ave. Disposal (kg/Facility)
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	Yes	27	140,313	33,508	Yes	57	12,519	98,336
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	Yes	1	30,593	0	Partially	83	1,370	10,509
		2930 Manufacture of parts and accessories for motor vehicles	Yes	38	42,054	3,960	Yes	147	4,255	80,555
	30: Manufacture of other transport equipment	3011 Building of ships and floating structures	Yes	20	29,131	689	Partially	33	94	19,926
		3012 Building of pleasure and sporting boats	Yes				Yes	38	159	39,194
		3020 Manufacture of railway locomotives and rolling stock	Yes	19	89,934	63	Yes	26	1,295	28,324
		3030 Manufacture of air and spacecraft and related machinery	Yes	5	66,695	413	Yes	63	4,428	13,105
		3040 Manufacture of military fighting vehicles	Yes				Yes	20	303	58,857
		3091 Manufacture of motorcycles	Yes				Yes	23	268	55,606
		3092 Manufacture of bicycles and invalid carriages	Yes	5	31,712	91,301	Yes	25	1,627	47,422
	3099 Manufacture of other transport equipment n.e.c.	Yes	5	23,783	5,236	Yes	41	12,725	53,286	
	31: Manufacture of furniture	3100 Manufacture of furniture	Yes	9	67,821	2,162	Yes	127	462	8,588
	32: Other manufacturing	3211 Manufacture of jewellery and related articles	Yes				Yes	26	1,220,374	3,097
		3212 Manufacture of imitation jewellery and related articles	Yes				Yes	1	0	0
		3220 Manufacture of musical instruments	Yes	1	81,900	7,345	Yes	81	18,927	30,293
3230 Manufacture of sports goods		Yes				Yes	2	125	0	
3240 Manufacture of games and toys		Yes	1	81,900	7,345	Yes	81	18,927	30,293	
3250 Manufacture of medical and dental instruments and supplies		Yes	2	381	0	Yes	16	4,687	4,089	
3290 Other manufacturing n.e.c.		Yes	86	92,801	7,165	Yes	90	17,426	28,677	
33: Repair and installation of machinery and equipment	3315 Repair of transport equipment, except motor vehicles	Yes	23	88,792	141	Partially	52	69,949	22,627	
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply	3510 Electric power generation, transmission and distribution	Yes	257	3,863,169	60,386	Yes	263	21,260	8,744
		3520 Manufacture of gas; distribution of gaseous fuels through mains	Yes	192	20,804	0	Partially	16	1	0
		3530 Steam and air conditioning supply	Yes	111	19,244	2,241	Yes	15	138	62
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700 Sewerage	Yes	462	143,701	63,688	Yes	311	501,435	16,623
	38: Waste collection, treatment and disposal activities; materials recovery	3812 Collection of hazardous waste	Yes	167	26,280	78,006	Yes	18	2,448	84,902
		3821 Treatment and disposal of non-hazardous waste	Yes	241	163,676	105,391	Yes	116	448,411	25,850
		3822 Treatment and disposal of hazardous waste	Yes	166	25,036	77,092	Yes	116	448,411	25,850

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ISIC Sector			Australia - NPI				Canada - NPRI			
Section	Division	Class	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Transfers (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Disposal (kg/Facility)
	39: Remediation activities and other waste management services	3900 Remediation activities and other waste management services	Yes	3	310,599	0	Yes	2	474	454
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661 Wholesale of solid, liquid and gaseous fuels and related products	Partially	512	12,591	3	Partially	77	1,292	2,898
J: Information and communication	58: Publishing activities	5811 Book publishing	Partially				Yes	2	0	0
		5812 Publishing of directories and mailing lists	Partially				Yes			
		5813 Publishing of newspapers, journals and periodicals	Partially				Yes	2	0	0
		5819 Other publishing activities	Partially				Yes	1	0	0
M: Professional, scientific and technical activities	72: Scientific research and development	7210 Research and experimental development on natural sciences and engineering	Yes	5	3,297	0	Partially	3	107,491	4,248
S: Other service activities	96: Other personal service activities	9601 Washing and (dry-) cleaning of textile and fur products	Yes	21	4,252	0	Yes	6	3,581	0

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Covered?	EU - E-PRTR			Covered?	Japan - PRTR			
				Facilities	Ave Transfers (kg/Facility)	Ave. Releases (kg/Facility)		Facilities	Ave. Releases (kg/Facility)	Ave Transfers (kg/Facility)	
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	Partially	119	201,175,613	47,171,397	No				
		0520 Mining of lignite	Partially	46	5,687,004	224,461,911	No				
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas	No				Yes	125	1,876	12	
		07: Mining of metal ores	0710 Mining of iron ores	Partially	7	1,094,943	196,734,483	Yes	123	1,761	26
		0721 Mining of uranium and thorium ores	Partially	3	1,267	1,104	Yes	123	1,761	26	
		0729 Mining of other non-ferrous metal ores	Partially	48	602,640,817	6,949,639	Yes	123	1,761	26	
	08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	Partially	278	10,717,311	23,065	No				
		0891 Mining of chemical and fertilizer minerals	Partially	7	565,063	85,710,776	No				
		0899 Other mining and quarrying n.e.c.	Partially	39	24,848,728	2,234,052	No				
	C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	Partially	659	25,822,806	1,049,478	Yes	507	7,147	348
			1020 Processing and preserving of fish, crustaceans and molluscs	Yes	103	1,829,678	215,011	Yes	507	7,147	348
			1030 Processing and preserving of fruit and vegetables	Yes	129	17,103,735	1,401,281	Yes	507	7,147	348
			1040 Manufacture of vegetable and animal oils and fats	Yes	117	8,865,354	9,263,778	Yes	507	7,147	348
1050 Manufacture of dairy products			Partially	479	4,718,173	512,874	Yes	507	7,147	348	
1061 Manufacture of grain mill products			Yes	21	2,641,348	2	Yes	507	7,147	348	
1062 Manufacture of starches and starch products			Yes	36	9,118,633	80,931,351	Yes	507	7,147	348	
1071 Manufacture of bakery products			No				Yes	507	7,147	348	
1072 Manufacture of sugar			Yes	120	50,890,735	54,882,740	Yes	507	7,147	348	
1073 Manufacture of cocoa, chocolate and sugar confectionery			Yes	19	2,936,255	14,599	Yes	507	7,147	348	
1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products			No				Yes	507	7,147	348	
1075 Manufacture of prepared meals and dishes			No				Yes	507	7,147	348	
1079 Manufacture of other food products n.e.c.			Partially	71	51,144,775	4,258,209	Yes	507	7,147	348	
1080 Manufacture of prepared animal feeds			No				Yes	247	197	1,977	
11: Manufacture of beverages		1101 Distilling, rectifying and blending of spirits	No				Yes	247	197	1,977	
		1102 Manufacture of wines	No				Yes	247	197	1,977	
		1103 Manufacture of malt liquors and malt	No				Yes	247	197	1,977	
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	No				Yes	247	197	1,977	
12: Manufacture of tobacco products		1200 Manufacture of tobacco products	No				Yes	247	197	1,977	
13: Manufacture of textiles		1311 Preparation and spinning of textile fibres	Yes	20	1,043,846	18,906	Yes	458	5,785	3,394	
		1312 Weaving of textiles	No				Yes	458	5,785	3,394	
		1313 Finishing of textiles	No				Yes	458	5,785	3,394	
		1391 Manufacture of knitted and crocheted fabrics	No				Yes	458	5,785	3,394	
		1392 Manufacture of made-up textile articles, except apparel	No				Yes	62	1,924	2,867	
		1393 Manufacture of carpets and rugs	No				Yes	62	1,924	2,867	

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		EU - E-PRTR			Japan - PRTR				
		Class	Covered?	Facilities	Ave Transfers (kg/Facility)	Ave. Releases (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave Transfers (kg/Facility)	
		1394	Manufacture of cordage, rope, twine and netting	No				Yes	458	5,785	3,394
		1399	Manufacture of other textiles n.e.c.	Partially	34	419,349	26,306	Yes	458	5,785	3,394
	14: Manufacture of wearing apparel	1410	Manufacture of wearing apparel, except fur apparel	No				Yes	62	1,924	2,867
		1420	Manufacture of articles of fur	No				Yes	62	1,924	2,867
		1430	Manufacture of knitted and crocheted apparel	No				Yes	62	1,924	2,867
	15: Manufacture of leather and related products	1511	Tanning and dressing of leather; dressing and dyeing of fur	Yes	29	10,036,383	33,797	Yes	58	2,489	723
		1512	Manufacture of luggage, handbags and the like, saddlery and harness	No				Yes	58	2,489	723
		1520	Manufacture of footwear	No				Yes	58	2,489	723
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1610	Sawmilling and planing of wood	Yes	27	12,273,876	23,427,655	Yes	310	7,648	207
		1621	Manufacture of veneer sheets and wood-based panels	Yes	151	8,354,249	20,153,600	Yes	310	7,648	207
		1622	Manufacture of builders' carpentry and joinery	Yes	19	3,137,998	6,263	Yes	310	7,648	207
		1623	Manufacture of wooden containers	Yes				Yes	310	7,648	207
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	Yes	11	1,198,113	26,630,196	Yes	310	7,648	207
	17: Manufacture of paper and paper products	1701	Manufacture of pulp, paper and paperboard	Yes	563	35,464,893	144,099,079	Yes	988	7,432	1,774
		1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	Yes	59	6,187,214	2,240,529	Yes	988	7,432	1,774
		1709	Manufacture of other articles of paper and paperboard	Yes	102	13,720,950	9,579,683	Yes	988	7,432	1,774
	18: Printing and reproduction of recorded media	1811	Printing	Yes	237	4,624,468	41,692	Partially	694	13,033	4,693
		1812	Service activities related to printing	No				Yes	694	13,033	4,693
	19: Manufacture of coke and refined petroleum products	1910	Manufacture of coke oven products	Yes	19	286,189	396,534,296	Yes	961	1,518	725
		1920	Manufacture of refined petroleum products	Yes	169	15,100,785	1,063,221,295	Yes	961	1,518	725
	20: Manufacture of chemicals and chemical products	2011	Manufacture of basic chemicals	Yes	1,079	55,451,249	96,748,686	Yes	17,646	1,341	5,242
		2012	Manufacture of fertilizers and nitrogen compounds	Yes	94	11,693,944	239,595,487	Yes	17,646	1,341	5,242
		2013	Manufacture of plastics and synthetic rubber in primary forms	Yes	334	3,509,673	44,926,994	Yes	17,646	1,341	5,242
		2021	Manufacture of pesticides and other agrochemical products	Yes	70	6,434,098	27,006	Yes	17,646	1,341	5,242
		2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Yes	95	991,054	39,423	Yes	17,646	1,341	5,242
		2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Yes	95	7,920,011	1,999	Yes	17,646	1,341	5,242
		2029	Manufacture of other chemical products n.e.c.	Partially	399	2,182,359	17,523,573	Yes	17,646	1,341	5,242
		2030	Manufacture of man-made fibres	Yes	43	801,506	16,104,088	Yes	17,646	1,341	5,242

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		EU - E-PRTR			Japan - PRTR				
		Class	Covered?	Facilities	Ave Transfers (kg/Facility)	Ave. Releases (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave Transfers (kg/Facility)	
	21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	2100	Manufacture of pharmaceuticals, medicinal chemical and botanical products	Yes	431	17,248,744	1,147,555	Yes	17,646	1,341	5,242
	22: Manufacture of rubber and plastics products	2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	Yes	23	4,861,247	13,303,552	Yes	1,336	5,623	1,196
		2219	Manufacture of other rubber products	Yes	29	1,442,030	21,079	Yes	1,336	5,623	1,196
		2220	Manufacture of plastics products	Yes	322	1,613,366	60,895	Yes	2,694	7,877	4,900
	23: Manufacture of other non-metallic mineral products	2310	Manufacture of glass and glass products	Partially	356	2,445,675	25,956,363	Yes	1,426	3,243	3,812
		2391	Manufacture of refractory products	Yes	60	1,045,129	39,110,536	Yes	1,426	3,243	3,812
		2392	Manufacture of clay building materials	Yes	448	25,551,386	6,679,202	Yes	1,426	3,243	3,812
		2393	Manufacture of other porcelain and ceramic products	Yes	41	2,317,657	31,417	Yes	1,426	3,243	3,812
		2394	Manufacture of cement, lime and plaster	Yes	370	1,107,568	485,717,328	Yes	1,426	3,243	3,812
		2395	Manufacture of articles of concrete, cement and plaster	No				Yes	1,426	3,243	3,812
		2396	Cutting, shaping and finishing of stone	No				Yes	1,426	3,243	3,812
		2399	Manufacture of other non-metallic mineral products n.e.c.	Partially	99	6,135,666	31,352,202	Yes	1,426	3,243	3,812
	24: Manufacture of basic metals	2410	Manufacture of basic iron and steel	Partially	533	145,574,226	375,824,488	Yes	1,711	2,345	14,009
		2420	Manufacture of basic precious and other non-ferrous metals	Yes	446	21,011,302	49,233,787	Yes	2,098	5,069	4,186
		2431	Casting of iron and steel	Yes	455	13,169,080	8,958,695	Yes	1,711	2,345	14,009
		2432	Casting of non-ferrous metals	Yes	320	19,151,387	9,013	Yes	2,098	5,069	4,186
	25: Manufacture of fabricated metal products, except machinery and equipment	2511	Manufacture of structural metal products	No				Yes	4,846	2,976	2,428
		2512	Manufacture of tanks, reservoirs and containers of metal	No				Yes	4,846	2,976	2,428
		2513	Manufacture of steam generators, except central heating hot water boilers	No				Yes	4,846	2,976	2,428
		2520	Manufacture of weapons and ammunition	Partially	18	536,190	1,029	Yes	28	579	53
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	No				Yes	1,711	2,345	14,009
		2592	Treatment and coating of metals; machining	Partially	1,713	1,129,287	385,623	Yes	1,711	2,345	14,009
		2593	Manufacture of cutlery, hand tools and general hardware	No				Yes	4,846	2,976	2,428
		2599	Manufacture of other fabricated metal products n.e.c.	No				Yes	4,846	2,976	2,428
	26: Manufacture of computer, electronic and optical products	2610	Manufacture of electronic components and boards	No				Yes	3,890	1,723	4,837
		2620	Manufacture of computers and peripheral equipment	No				Yes	3,890	1,723	4,837
		2630	Manufacture of communication equipment	No				Yes	3,890	1,723	4,837
		2640	Manufacture of consumer electronics	No				Yes	3,890	1,723	4,837
		2651	Manufacture of measuring, testing, navigating and control equipment	No				Yes	3,890	1,723	4,837
		2652	Manufacture of watches and clocks	No				Yes	427	3,020	3,118

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Section	Division	ISIC Sector		EU - E-PRTR			Japan - PRTR			
		Class	Covered?	Facilities	Ave Transfers (kg/Facility)	Ave. Releases (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave Transfers (kg/Facility)
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	No			Yes	3,890	1,723	4,837
		2670	Manufacture of optical instruments and photographic equipment	No			Yes	427	3,020	3,118
		2680	Manufacture of magnetic and optical media	No			Yes	427	3,020	3,118
	27: Manufacture of electrical equipment	2710	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	No			Yes	3,890	1,723	4,837
		2720	Manufacture of batteries and accumulators	No			Yes	3,890	1,723	4,837
		2731	Manufacture of fibre optic cables	No			Yes	3,890	1,723	4,837
		2732	Manufacture of other electronic and electric wires and cables	No			Yes	2,098	5,069	4,186
		2733	Manufacture of wiring devices	No			Yes	3,890	1,723	4,837
		2740	Manufacture of electric lighting equipment	No			Yes	3,890	1,723	4,837
		2750	Manufacture of domestic appliances	No			Yes	3,890	1,723	4,837
		2790	Manufacture of other electrical equipment	No			Yes	3,890	1,723	4,837
	28: Manufacture of machinery and equipment n.e.c.	2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	No			Yes	2,068	4,327	1,210
		2812	Manufacture of fluid power equipment	No			Yes	2,068	4,327	1,210
		2813	Manufacture of other pumps, compressors, taps and valves	No			Yes	2,068	4,327	1,210
		2814	Manufacture of bearings, gears, gearing and driving elements	No			Yes	2,068	4,327	1,210
		2815	Manufacture of ovens, furnaces and furnace burners	No			Yes	2,068	4,327	1,210
		2816	Manufacture of lifting and handling equipment	No			Yes	2,068	4,327	1,210
		2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	No			Yes	2,068	4,327	1,210
		2818	Manufacture of power-driven hand tools	No			Yes	3,890	1,723	4,837
		2819	Manufacture of other general-purpose machinery	No			Yes	2,068	4,327	1,210
		2821	Manufacture of agricultural and forestry machinery	No			Yes	2,068	4,327	1,210
		2822	Manufacture of metal-forming machinery and machine tools	No			Yes	2,068	4,327	1,210
		2823	Manufacture of machinery for metallurgy	No			Yes	2,068	4,327	1,210
		2824	Manufacture of machinery for mining, quarrying and construction	No			Yes	2,068	4,327	1,210
		2825	Manufacture of machinery for food, beverage and tobacco processing	No			Yes	2,068	4,327	1,210
		2826	Manufacture of machinery for textile, apparel and leather production	No			Yes	2,068	4,327	1,210
		2829	Manufacture of other special-purpose machinery	No			Yes	2,068	4,327	1,210

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		EU - E-PRTR				Japan - PRTR		
		Class	Covered?	Facilities	Ave Transfers (kg/Facility)	Ave. Releases (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave Transfers (kg/Facility)
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	No				Yes	4,348	9,053	1,321
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	No				Yes	4,348	9,053	1,321
		2930 Manufacture of parts and accessories for motor vehicles	Partially	167	3,960,382	13,879	Yes	4,348	9,053	1,321
	30: Manufacture of other transport equipment	3011 Building of ships and floating structures	Yes	66	6,343,501	21,667	Yes	4,348	9,053	1,321
		3012 Building of pleasure and sporting boats	Yes	5	289,780	0	Yes	4,348	9,053	1,321
		3020 Manufacture of railway locomotives and rolling stock	No				Yes	4,348	9,053	1,321
		3030 Manufacture of air and spacecraft and related machinery	No				Yes	4,348	9,053	1,321
		3040 Manufacture of military fighting vehicles	No				Yes	28	579	53
		3091 Manufacture of motorcycles	No				Yes	4,348	9,053	1,321
		3092 Manufacture of bicycles and invalid carriages	No				Yes	4,348	9,053	1,321
		3099 Manufacture of other transport equipment n.e.c.	No				Yes	4,348	9,053	1,321
	31: Manufacture of furniture	3100 Manufacture of furniture	No				Yes	216	3,415	1,046
	32: Other manufacturing	3211 Manufacture of jewellery and related articles	Partially	4	2,463,170	18	Yes	253	5,221	1,889
		3212 Manufacture of imitation jewellery and related articles	Partially	1	119,560	0	Yes	253	5,221	1,889
		3220 Manufacture of musical instruments	Partially				Yes	253	5,221	1,889
3230 Manufacture of sports goods		Partially	4	63,562	27,000	Yes	253	5,221	1,889	
3240 Manufacture of games and toys		Partially	1	5,860	0	Yes	253	5,221	1,889	
3250 Manufacture of medical and dental instruments and supplies		No				Yes	427	3,020	3,118	
3290 Other manufacturing n.e.c.		No				Yes	253	5,221	1,889	
33: Repair and installation of machinery and equipment	3315 Repair of transport equipment, except motor vehicles	Partially	55	5,308,680	25,134	Yes	80	1,558	788	
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply	3510 Electric power generation, transmission and distribution	Partially	997	46,852,795	1,552,145,833	Yes	419	693	1,322
		3520 Manufacture of gas; distribution of gaseous fuels through mains	Partially	66	578,733	24,444,574	Yes	68	624	80
		3530 Steam and air conditioning supply	Partially	526	15,748,242	260,442,131	Yes	23	273	1,435
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700 Sewerage	Yes	1,094	18,558,342	4,671,395	Yes	55,755	73	5
	38: Waste collection, treatment and disposal activities; materials recovery	3812 Collection of hazardous waste	Yes	215	10,998,931	92,848	Yes	4,947	58	105
		3821 Treatment and disposal of non-hazardous waste	Yes	4,331	25,689,990	17,586,678	Yes	29,064	3	7
		3822 Treatment and disposal of hazardous waste	Yes	1,079	20,194,089	1,862,373	Yes	4,947	58	105

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			EU - E-PRTR				Japan - PRTR			
Section	Division	Class	Covered?	Facilities	Ave Transfers (kg/Facility)	Ave. Releases (kg/Facility)	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave Transfers (kg/Facility)
	39: Remediation activities and other waste management services	3900 Remediation activities and other waste management services	Partially	79	46,855,489	494,646	Yes	4,947	58	105
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661 Wholesale of solid, liquid and gaseous fuels and related products	Partially	10	3,339,563	1,964,213	Yes	1,959	572	4
J: Information and communication	58: Publishing activities	5811 Book publishing	Yes				No			
		5812 Publishing of directories and mailing lists	Yes				No			
		5813 Publishing of newspapers, journals and periodicals	Yes	1	7,185,100	0	No			
		5819 Other publishing activities	Yes	2	2,630,050	241,000	No			
M: Professional, scientific and technical activities	72: Scientific research and development	7210 Research and experimental development on natural sciences and engineering	No				Yes	540	435	1,167
S: Other service activities	96: Other personal service activities	9601 Washing and (dry-) cleaning of textile and fur products	Yes	1	2,055,100	0	Yes	181	1,218	1,755

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector Class	Covered?	Facilities	USA - TRI		
					Ave. Releases (kg/Facility)	Ave. Waste Managed (kg/Facility)	
B: Mining and quarrying	05: Mining of coal and lignite	0510 Mining of hard coal	Partially				
		0520 Mining of lignite	Yes	58	80,839	79,720	
	06: Extraction of crude petroleum and natural gas	0620 Extraction of natural gas	Partially	1	363,266	459,067	
		07: Mining of metal ores	0710 Mining of iron ores	No			
		0721 Mining of uranium and thorium ores	Yes	14	381,367	532,045	
		0729 Mining of other non-ferrous metal ores	Yes	79	9,315,884	10,197,614	
	08: Other mining and quarrying	0810 Quarrying of stone, sand and clay	Partially	43	4,908	7,780	
		0891 Mining of chemical and fertilizer minerals	Partially	8	5,375	8,257	
		0899 Other mining and quarrying n.e.c.	Partially	23	4,102	7,710	
	C: Manufacturing	10: Manufacture of food products	1010 Processing and preserving of meat	Partially	312	98,775	291,768
			1020 Processing and preserving of fish, crustaceans and molluscs	Yes	20	3,723	16,371
			1030 Processing and preserving of fruit and vegetables	Yes	216	16,458	47,098
			1040 Manufacture of vegetable and animal oils and fats	Yes	148	116,481	2,128,121
1050 Manufacture of dairy products			Yes	390	14,449	136,536	
1061 Manufacture of grain mill products			Yes	47	1,026	1,025	
1062 Manufacture of starches and starch products			Yes	47	190,959	1,196,708	
1071 Manufacture of bakery products			Partially	66	10,328	22,711	
1072 Manufacture of sugar			Yes	24	111,983	167,663	
1073 Manufacture of cocoa, chocolate and sugar confectionery			Partially	7	865	46,998	
1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products			Yes	57	5,302	20,056	
1075 Manufacture of prepared meals and dishes			Yes	109	4,938	24,408	
1079 Manufacture of other food products n.e.c.			Yes	413	15,595	122,706	
1080 Manufacture of prepared animal feeds			Partially	404	2,177	16,529	
11: Manufacture of beverages		1101 Distilling, rectifying and blending of spirits	Yes	15	6,321	57,077	
		1102 Manufacture of wines	Yes	10	1,496	28,319	
		1103 Manufacture of malt liquors and malt	Yes	23	54,741	76,814	
		1104 Manufacture of soft drinks; production of mineral waters and other bottled waters	Partially	13	35	10,035	
12: Manufacture of tobacco products		1200 Manufacture of tobacco products	Partially	28	22,059	50,392	
13: Manufacture of textiles		1311 Preparation and spinning of textile fibres	Yes	24	5,946	224,540	
		1312 Weaving of textiles	Yes	14	6,802	50,125	
		1313 Finishing of textiles	Partially	97	8,765	110,952	
		1391 Manufacture of knitted and crocheted fabrics	Yes	2	0	1,246	
		1392 Manufacture of made-up textile articles, except apparel	Partially	46	3,402	14,075	
		1393 Manufacture of carpets and rugs	Partially	33	2,407	4,529	

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		Covered?	Facilities	USA - TRI	
		Class				Ave. Releases (kg/Facility)	Ave. Waste Managed (kg/Facility)
		1394	Manufacture of cordage, rope, twine and netting	Yes	7	5,410	9,270
		1399	Manufacture of other textiles n.e.c.	Yes	186	14,047	213,544
	14: Manufacture of wearing apparel	1410	Manufacture of wearing apparel, except fur apparel	Partially	89	3,678	24,033
		1420	Manufacture of articles of fur	Yes	18	5,670	39,895
		1430	Manufacture of knitted and crocheted apparel	Yes			
	15: Manufacture of leather and related products	1511	Tanning and dressing of leather; dressing and dyeing of fur	Yes	16	16,825	39,285
		1512	Manufacture of luggage, handbags and the like, saddlery and harness	Yes	38	2,578	42,543
		1520	Manufacture of footwear	Yes	12	2,440	6,184
	16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1610	Sawmilling and planing of wood	Yes	457	2,370	23,330
		1621	Manufacture of veneer sheets and wood-based panels	Yes	132	20,284	74,531
		1622	Manufacture of builders' carpentry and joinery	Yes	256	2,853	9,436
		1623	Manufacture of wooden containers	Yes	59	5,277	17,920
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	Yes	235	18,315	203,766
	17: Manufacture of paper and paper products	1701	Manufacture of pulp, paper and paperboard	Yes	380	212,238	1,913,062
		1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	Yes	239	217,544	1,786,755
		1709	Manufacture of other articles of paper and paperboard	Yes	366	148,852	1,334,022
	18: Printing and reproduction of recorded media	1811	Printing	Partially	162	29,079	785,015
		1812	Service activities related to printing	Yes	17	1,406	26,174
	19: Manufacture of coke and refined petroleum products	1910	Manufacture of coke oven products	Yes	49	156,105	1,724,038
		1920	Manufacture of refined petroleum products	Yes	368	124,257	2,544,721
	20: Manufacture of chemicals and chemical products	2011	Manufacture of basic chemicals	Yes	1,576	95,859	1,621,343
		2012	Manufacture of fertilizers and nitrogen compounds	Yes	393	151,563	942,980
		2013	Manufacture of plastics and synthetic rubber in primary forms	Yes	574	59,385	1,359,095
		2021	Manufacture of pesticides and other agrochemical products	Yes	181	59,233	1,279,504
		2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Yes	988	6,196	187,880
		2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Yes	942	5,485	162,904
		2029	Manufacture of other chemical products n.e.c.	Yes	1,102	57,597	1,236,346
		2030	Manufacture of man-made fibres	Yes	26	38,341	5,592,395

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		Covered?	Facilities	USA - TRI	
		Class				Ave. Releases (kg/Facility)	Ave. Waste Managed (kg/Facility)
	21: Manufacture of basic pharmaceutical products and pharmaceutical preparations	2100	Manufacture of pharmaceuticals, medicinal chemical and botanical products	Yes	609	96,224	2,073,738
	22: Manufacture of rubber and plastics products	2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	Partially	55	17,275	72,882
		2219	Manufacture of other rubber products	Yes	421	9,811	52,848
		2220	Manufacture of plastics products	Yes	1,434	11,605	107,664
	23: Manufacture of other non-metallic mineral products	2310	Manufacture of glass and glass products	Yes	210	16,024	45,351
		2391	Manufacture of refractory products	Yes	30	12,002	40,573
		2392	Manufacture of clay building materials	Yes	117	8,780	20,482
		2393	Manufacture of other porcelain and ceramic products	Yes	13	1,410	4,461
		2394	Manufacture of cement, lime and plaster	Yes	225	17,069	521,636
		2395	Manufacture of articles of concrete, cement and plaster	Yes	722	508	2,405
		2396	Cutting, shaping and finishing of stone	Partially	8	1,473	32,490
		2399	Manufacture of other non-metallic mineral products n.e.c.	Yes	1,130	34,860	318,661
	24: Manufacture of basic metals	2410	Manufacture of basic iron and steel	Yes	429	214,131	1,090,259
		2420	Manufacture of basic precious and other non-ferrous metals	Yes	961	68,131	688,245
		2431	Casting of iron and steel	Yes	421	29,741	154,609
		2432	Casting of non-ferrous metals	Yes	282	5,898	146,214
	25: Manufacture of fabricated metal products, except machinery and equipment	2511	Manufacture of structural metal products	Yes	470	3,182	31,513
		2512	Manufacture of tanks, reservoirs and containers of metal	Yes	174	4,577	29,645
		2513	Manufacture of steam generators, except central heating hot water boilers	Yes	81	10,078	43,227
		2520	Manufacture of weapons and ammunition	Yes	54	7,231	380,856
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	Yes	377	2,213	100,364
		2592	Treatment and coating of metals; machining	Yes	948	6,592	62,441
		2593	Manufacture of cutlery, hand tools and general hardware	Yes	438	2,528	89,895
		2599	Manufacture of other fabricated metal products n.e.c.	Yes	1,144	8,882	188,573
	26: Manufacture of computer, electronic and optical products	2610	Manufacture of electronic components and boards	Yes	666	3,348	57,832
		2620	Manufacture of computers and peripheral equipment	Yes	31	751	45,950
		2630	Manufacture of communication equipment	Yes	72	117	31,711
		2640	Manufacture of consumer electronics	Yes	9	1,844	2,585
		2651	Manufacture of measuring, testing, navigating and control equipment	Yes	211	428	23,813
		2652	Manufacture of watches and clocks	Yes	13	508	32,038

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154 ISIC sectors covered by 4 or more PRTRs

Section	Division	ISIC Sector		USA - TRI			
		Class	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Waste Managed (kg/Facility)	
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	Yes	29	668	10,524
		2670	Manufacture of optical instruments and photographic equipment	Yes	31	2,135	60,624
		2680	Manufacture of magnetic and optical media	Yes	2	6,907	173,377
	27: Manufacture of electrical equipment	2710	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	Partially	206	2,699	61,618
		2720	Manufacture of batteries and accumulators	Yes	639	9,627	243,754
		2731	Manufacture of fibre optic cables	Yes	3	2,103	38,712
		2732	Manufacture of other electronic and electric wires and cables	Yes	181	5,975	386,378
		2733	Manufacture of wiring devices	Yes	70	4,010	65,916
		2740	Manufacture of electric lighting equipment	Yes	46	3,126	18,932
		2750	Manufacture of domestic appliances	Yes	44	8,610	58,049
		2790	Manufacture of other electrical equipment	Yes	294	3,479	44,541
	28: Manufacture of machinery and equipment n.e.c.	2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	Yes	87	6,739	50,416
		2812	Manufacture of fluid power equipment	Yes	73	929	63,300
		2813	Manufacture of other pumps, compressors, taps and valves	Yes	688	3,986	79,442
		2814	Manufacture of bearings, gears, gearing and driving elements	Yes	96	1,313	33,610
		2815	Manufacture of ovens, furnaces and furnace burners	Yes	239	924	50,792
		2816	Manufacture of lifting and handling equipment	Yes	328	3,262	46,787
		2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	Yes	28	54,401	452,547
		2818	Manufacture of power-driven hand tools	Yes	183	2,951	77,953
		2819	Manufacture of other general-purpose machinery	Yes	885	3,292	54,045
		2821	Manufacture of agricultural and forestry machinery	Yes	180	3,505	49,391
		2822	Manufacture of metal-forming machinery and machine tools	Yes	128	1,057	42,174
		2823	Manufacture of machinery for metallurgy	Yes	329	28,469	61,047
		2824	Manufacture of machinery for mining, quarrying and construction	Yes	182	1,709	214,249
		2825	Manufacture of machinery for food, beverage and tobacco processing	Yes	145	2,557	68,173
		2826	Manufacture of machinery for textile, apparel and leather production	Yes	104	3,268	72,756
		2829	Manufacture of other special-purpose machinery	Yes	150	3,169	36,831

Short Reporting Sector List - Reporting Information

154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			USA - TRI			
Section	Division	Class	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Waste Managed (kg/Facility)
	29: Manufacture of motor vehicles, trailers and semi-trailers	2910 Manufacture of motor vehicles	Yes	283	21,989	100,608
		2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	Partially	665	10,073	80,978
		2930 Manufacture of parts and accessories for motor vehicles	Yes	555	6,203	54,334
	30: Manufacture of other transport equipment	3011 Building of ships and floating structures	Yes	380	5,902	27,763
		3012 Building of pleasure and sporting boats	Yes	379	7,838	20,962
		3020 Manufacture of railway locomotives and rolling stock	Yes	140	3,346	57,051
		3030 Manufacture of air and spacecraft and related machinery	Yes	328	4,949	85,693
		3040 Manufacture of military fighting vehicles	Yes	7	949	4,395
		3091 Manufacture of motorcycles	Yes	44	8,349	39,858
		3092 Manufacture of bicycles and invalid carriages	Yes	45	4,893	79,129
	3099 Manufacture of other transport equipment n.e.c.	Yes	115	4,317	45,075	
	31: Manufacture of furniture	3100 Manufacture of furniture	Partially	612	9,922	85,003
	32: Other manufacturing	3211 Manufacture of jewellery and related articles	Yes	59	2,016	19,203
		3212 Manufacture of imitation jewellery and related articles	Yes	2	0	1,303
		3220 Manufacture of musical instruments	Yes	122	5,012	33,643
		3230 Manufacture of sports goods	Yes	30	10,877	47,116
		3240 Manufacture of games and toys	Yes	110	5,518	31,497
		3250 Manufacture of medical and dental instruments and supplies	Partially	221	3,792	50,458
		3290 Other manufacturing n.e.c.	Yes	238	7,421	65,165
33: Repair and installation of machinery and equipment	3315 Repair of transport equipment, except motor vehicles	Partially	66	17,842	48,087	
D: Electricity, gas, steam and air conditioning supply	35: Electricity, gas, steam and air conditioning supply	3510 Electric power generation, transmission and distribution	Partially	635	500,486	1,369,135
		3520 Manufacture of gas; distribution of gaseous fuels through mains	No			
		3530 Steam and air conditioning supply	Partially	7	40,516	46,702
E: Water supply; sewerage, waste management and remediation activities	37: Sewerage	3700 Sewerage	No			
	38: Waste collection, treatment and disposal activities; materials recovery	3812 Collection of hazardous waste	Partially	73	60	169,032
		3821 Treatment and disposal of non-hazardous waste	Partially	12	105,990	1,348,837
		3822 Treatment and disposal of hazardous waste	Partially	98	531,927	2,650,114

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154 ISIC sectors covered by 4 or more PRTRs

ISIC Sector			USA - TRI			
Section	Division	Class	Covered?	Facilities	Ave. Releases (kg/Facility)	Ave. Waste Managed (kg/Facility)
	39: Remediation activities and other waste management services	3900 Remediation activities and other waste management services	No			
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46: Wholesale trade, except of motor vehicles and motorcycles	4661 Wholesale of solid, liquid and gaseous fuels and related products	Partially	502	2,058	14,830
J: Information and communication	58: Publishing activities	5811 Book publishing	Partially	2	0	0
		5812 Publishing of directories and mailing lists	Partially			
		5813 Publishing of newspapers, journals and periodicals	Partially	1	3,979	11,837
		5819 Other publishing activities	Yes	2	182	47,775
M: Professional, scientific and technical activities	72: Scientific research and development	7210 Research and experimental development on natural sciences and engineering	Partially	19	16,023	45,770
S: Other service activities	96: Other personal service activities	9601 Washing and (dry-) cleaning of textile and fur products	No			

ANNEX 2 SHORT CHEMICAL LIST SUMMARY

Legend

PRTR Program	Column	Symbol	Explanation
All	Covered by PRTR?	*	Substance included as a compound entry in the respective PRTR; or substances regulated in complementary programs to the respective PRTR
All	Covered by PRTR?	x	Substance covered under the PRTR.
Canada: NPRI	Activity	✓	Reporting of Part 3 chemicals is based on whether or not the facility engages in a list of specified activities.
Canada: NPRI	Air Release (kg/year)	1000 ^A	Designates a reporting threshold of 1000 kg/year (1 ton) for Part 5 chemicals. A Part 5 substances must be reported if both the quantity of that substance released to air exceeds 1000 kg/year and the sum of all Part 4 chemicals released to air exceeds 10 tons.
EU: E-PRTR and Kiev Protocol Implementation Guidance	Release to Air Release to Water Release to Land	-	The chemical and medium (air, water, or land) does not trigger a reporting requirement.
Kiev Protocol Implementation Guidance	Manufacture, Process or Use (kg/year)	#	Release threshold to air should be used instead of an MPU threshold.
Kiev Protocol Implementation Guidance	Manufacture, Process or Use (kg/year)	##	Release threshold to water should be used instead of an MPU threshold.
Japan: PRTR	Chemical Category	I	Class 1 Designated Substance
Japan: PRTR	Chemical Category	S	Specific Class 1 Designated Substance
US: TRI	<i>De Minimis</i> % Limit	‡	The given chemical is designated as PBT (persistent, bio accumulative, and toxic) and therefore no concentration threshold applies.
US: TRI	Manufacture (kg/year) Process (kg/year) Otherwise Use (kg/year) <i>De Minimis</i> % Limit	RS	Reporting for the chemical was stayed in 1995, no threshold information provided.
All	Reporting Score	○	Not Reported
All	Reporting Score	●	Low Reporting
All	Reporting Score	●●	Medium Reporting
All	Reporting Score	●●●	High Reporting

Persistent Organic Pollutants (POPs), Greenhouse gases (GHGs): present in ≤2 PRTR-Systems, but included due to their environmental relevance

Substances in groups where single substances are present in 5 PRTR-Systems

Substances in groups where single substances are present in 4 PRTR-Systems (incl. 3 POPs)

Substances in groups where single substances are present in 3 PRTR-Systems

Short Chemical List

Pollutant		
CAS Number	Pollutant Name	Remarks
Persistent Organic Pollutants (POPs)		
309-00-2	Aldrin	
57-74-9	Chlordane	
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane	
60-57-1	Dieldrin	
72-20-8	Endrin	
76-44-8	Heptachlor	
2385-85-5	Mirex	
8001-35-2	Toxaphene	
319-84-6	alpha-hexachlorocyclohexane	
319-85-7	beta-hexachlorocyclohexane	
58-89-9	Lindane / gamma-hexachlorocyclohexane	
143-50-0	Chlordecone	
608-93-5	Pentachlorobenzene	
118-74-1	Hexachlorobenzene (HCB)	
1336-36-3	polychlorinated biphenyls (PCBs)	
36355-01-8	Hexabromobiphenyl	
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)	as Hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether)
207122-15-4	2,2',4,4',5,5',6'-hexabromodiphenyl ether (BDE-154)	as Hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether)
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)	as Hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether)
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)	as Hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether)
5436-43-1	Tetrabromodiphenyl ether	as Tetrabromodiphenyl ether and pentabromodiphenyl ether (commercial pentabromodiphenyl ether)
60348-60-9	Pentabromodiphenyl ether	as Tetrabromodiphenyl ether and pentabromodiphenyl ether (commercial pentabromodiphenyl ether)
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F) / Jpn: perfluoro(octane-1-sulfonic acid)	
LCL-2	Polychlorinated dioxins and furans (as TEF)	expressed as WHO 2005 TEF
Metals		
LCL-5	Antimony and compounds (as Sb)	includes antimony and any unique chemical substance that contains antimony as part of that chemical's infrastructure
LCL-7	Arsenic and compounds (as As)	includes arsenic and any unique chemical substance that contains arsenic as part of that chemical's infrastructure
LCL-10	Cadmium and compounds (as Cd)	includes cadmium and any unique chemical substance that contains cadmium as part of that chemical's infrastructure
LCL-14	Chromium and chromium(III) compounds (as Cr)	includes chromium and any unique chemical substance that contains chromium(III) as part of that chemical's infrastructure
LCL-15	Chromium(VI) compounds (as Cr)	includes any unique chemical substance that contains chromium(VI) as part of that chemical's infrastructure
LCL-17	Cobalt and compounds (as Co)	includes cobalt and any unique chemical substance that contains cobalt as part of that chemical's infrastructure
LCL-19	Copper and compounds (as Cu)	includes copper and any unique chemical substance that contains copper as part of that chemical's infrastructure
LCL-21	Lead and compounds (as Pb)	includes lead and any unique chemical substance that contains lead as part of that chemical's infrastructure
LCL-24	Manganese and compounds (as Mn)	includes manganese and any unique chemical substance that contains manganese as part of that chemical's infrastructure
LCL-26	Mercury and compounds (as Hg)	includes mercury and any unique chemical substance that contains mercury as part of that chemical's infrastructure
LCL-28	Nickel and compounds (as Ni)	includes nickel and any unique chemical substance that contains nickel as part of that chemical's infrastructure
LCL-30	Selenium and compounds (as Se)	includes selenium and any unique chemical substance that contains selenium as part of that chemical's infrastructure
LCL-32	Zinc and compounds (as Zn)	includes zinc and any unique chemical substance that contains zinc as part of that chemical's infrastructure
Inorganic substances		
1332-21-4	Asbestos (friable)	the listing for asbestos is qualified by the term "friable," referring to the physical characteristic of being able to be crumbled, pulverized, or reducible to a powder with hand pressure
LCL-42	Cyanide (inorganic) compounds (as CN)	reported as CN
74-90-8	Hydrogen cyanide	
LCL-43	Fluorides (as total F)	reported as F
LCL-45	Phosphorus (total)	
LCL-50	PM10 - Particulate matter	
LCL-52	Chlorides (as total Cl)	
LCL-53	Total nitrogen	
Chlorinated and brominated organic substances		
107-06-2	1,2-Dichloroethane	
79-00-5	1,1,2-Trichloroethane	
71-55-6	1,1,1-trichloroethane	
79-34-5	1,1,2,2-Tetrachloroethane	
75-01-4	Vinyl chloride (Chloroethylene)	
79-01-6	Trichloroethylene	
127-18-4	Tetrachloroethylene	
75-09-2	Dichloromethane / methylene dichloride	
67-66-3	Trichloromethane / Chloroform	
56-23-5	Tetrachloromethane / Carbon tetrachloride	
12002-48-1	Trichlorobenzenes	
1163-19-5	Decabromodiphenyl ether	
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)	
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro	
87-86-5	Pentachlorophenol (PCP)	
LCL-60	Halogenated organic compounds (as AOX)	
87-68-3	Hexachlorobutadiene (HCBD)	

Short Chemical List

Pollutant		
CAS Number	Pollutant Name	Remarks
Ozone depleting substances		
LCL-62	Hydrochlorofluorocarbons (HCFCs)	total mass of substances including their isomers listed in Group I Annex C of the list of controlled substances under the Montreal Protocol
LCL-63	Chlorofluorocarbons (CFCs)	total mass of substances including their isomers listed in Group I Annex A and Group I Annex B of the list of controlled substances under the Montreal Protocol
LCL-65	Halons	total mass of substances including their isomers listed in Group II Annex A and Group I Annex E of the list of controlled substances under the Montreal Protocol
Greenhouse gases (GHGs)		
124-38-9	Carbon dioxide	
74-82-8	Methane	
10024-97-2	Nitrous oxide	
LCL-66	Hydrofluorocarbons (HFCs)	Total mass of hydrogen fluorocarbons: sum of HFC23, HFC32, HFC41, HFC4310mee, HFC125, HFC134, HFC134a, HFC152a, HFC143, HFC143a, HFC227ea, HFC236fa, HFC245ca, HFC365mfc
LCL-67	Perfluorocarbons (PFCs)	Total mass of perfluorocarbons: sum of CF4, C2F6, C3F8, C4F10, c-C4F8, C5F12, C6F14
2551-62-4	Sulphur hexafluoride (SF6)	
Other gases		
7664-41-7	Ammonia (NH3)	anhydrous ammonia
LCL-69	Chlorine and inorganic compounds (as HCl)	acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size
75-21-8	Ethylene oxide	
630-08-0	Carbon monoxide	
LCL-70	Fluorine and inorganic compounds (as HF)	
11104-93-1	Nitrogen oxides (NOx/NO2)	
2025-88-4	Sulphur oxides (SOx/SO2)	
Polycyclic aromatic hydrocarbons (PAHs)		
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)-fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)	
120-12-7	Anthracene	
91-20-3	Naphthalene	
Other organic substances		
75-05-8	Acetonitrile	
107-02-8	Acrolein	
79-06-1	Acrylamid	
79-10-7	Acrylic acid and its water-soluble salts	
80-62-6	Methyl methacrylate	
107-13-1	Acrylonitrile	
75-07-0	Acetaldehyde	
62-53-3	Aniline	
92-52-4	Biphenyl (1,1-biphenyl)	
98-82-8	Cumene (1-methylethylbenzene)	
110-54-3	n-Hexane	
71-43-2	Benzene	
100-41-4	Ethylbenzene	
108-88-3	Toluene	
1330-20-7	Xylene (mixed isomers)	
106-99-0	1,3-Butadiene	
75-15-0	Carbon disulfide / Carbon disulphide	
101-68-8	Methylenebis(phenylisocyanate) (MDI)	
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether	
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether	
50-00-0	Formaldehyde	
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate	
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate	
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane	
LCL-91	Organotin compounds (as total Sn)	
LCL-92	Tributyltin and compounds	
LCL-93	Triphenyltin and compounds	
LCL-94	Phenols (as total C)	
108-95-2	Phenol	
117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP) / bis(2-ethylhexyl)phthalate	
84-74-2	Dibutyl phthalate	
100-42-5	Styrene	
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	
LCL-100	Non-methane volatile organic compounds (NMVOC)	
LCL-107	Total organic carbon (TOC) (as total C or COD/3)	
Active substances of plant protection products or biocidal products		
15972-60-8	Alachlor (2-chloro-2',6'-diethyl-N-(methoxymethyl)acetanilide)	
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU	
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)	
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)	
1582-09-8	Trifluralin (α,α,α -trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)	
470-90-8	Chlorfenvinphos	
2921-88-2	Chlorpyrifos	
115-29-7	Endosulphan / 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide	
608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)	
34123-59-6	Isoproturon	

Short Chemical List

Pollutant		Covered by PRTR?					
CAS Number	Pollutant Name	Australia NPI	Canada NPRI	EU E-PRTR	Kiev Protocol	Japan PRTR	US TRI
Persistent Organic Pollutants (POPs)							
309-00-2	Aldrin			x	x		x
57-74-9	Chlordane			x	x		x
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane			x	x		
60-57-1	Dieldrin			x	x		
72-20-8	Endrin			x	x		
76-44-8	Heptachlor			x	x		x
2385-85-5	Mirex			x	x		
8001-35-2	Toxaphene			x	x		x
319-84-6	alpha-hexachlorocyclohexane						x
319-85-7	beta-hexachlorocyclohexane						
58-89-9	Lindane / gamma-hexachlorocyclohexane			x	x		x
143-50-0	Chlordecone			x	x		
608-93-5	Pentachlorobenzene			x	x		x
118-74-1	Hexachlorobenzene (HCB)	x	x	x	x		x
1336-36-3	Polychlorinated biphenyls (PCBs)	x		x	x	x	x
36355-01-8	Hexabromobiphenyl			x			
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)						
207122-15-4	2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154)						
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)						
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)						
5436-43-1	Tetrabromodiphenyl ether						
60348-60-9	Pentabromodiphenyl ether						
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F) / Jpn: perfluoro(octane-1-sulfonic acid)						x
LCL-2	Polychlorinated dioxins and furans (as TEF)	x	*	x	x		x
Metals							
LCL-5	Antimony and compounds (as Sb)	x	x				x x
LCL-7	Arsenic and compounds (as As)	x	x	x	x		x x
LCL-10	Cadmium and compounds (as Cd)	x	x	x	x		x x
LCL-14	Chromium and chromium(III) compounds (as Cr)	x	x	*	*		x *
LCL-15	Chromium(VI) compounds (as Cr)	x	x	*	*		x *
LCL-17	Cobalt and compounds (as Co)	x	x				x x
LCL-19	Copper and compounds (as Cu)	x	x	x	x		x x
LCL-21	Lead and compounds as (Pb)	x	x	x	x		x x
LCL-24	Manganese and compounds (as Mn)	x	x				x x
LCL-26	Mercury and compounds (as Hg)	x	x	x	x		x x
LCL-28	Nickel and compounds (as Ni)	x	x	x	x		x x
LCL-30	Selenium and compounds (as Se)	x	x				x x
LCL-32	Zinc and compounds (as Zn)	x	x	x	x		x x
Inorganic substances							
1332-21-4	Asbestos (friable)		x	x	x		x x
LCL-42	Cyanide (inorganic) compounds (as CN)	x	x	x	x		x x
74-90-8	Hydrogen cyanide		x	x	x		x
LCL-43	Fluorides (as total F)	x	*	x	x		*
LCL-45	Phosphorus (total)	x		x	x		
LCL-50	PM10 - Particulate matter	x	x	x	x		
LCL-52	Chlorides (as total Cl)			x	x		
LCL-53	Total nitrogen	x		x	x		
Chlorinated and brominated organic substances							
107-06-2	1,2-Dichloroethane	x	x	x	x		x x
79-00-5	1,1,2-Trichloroethane	x	x				x x
71-55-6	1,1,1-trichloroethane			x	x		x x
79-34-5	1,1,2,2-Tetrachloroethane	x	x	x	x		x
75-01-4	Vinyl chloride (Chloroethylene)	x	x	x	x		x x
79-01-6	Trichloroethylene	x	x	x	x		x x
127-18-4	Tetrachloroethylene	x	x	x	x		x x
75-09-2	Dichloromethane / methylene dichloride	x	x	x	x		x x
67-66-3	Trichloromethane / Chloroform	x	x	x	x		x x
56-23-5	Tetrachloromethane / Carbon tetrachloride		x	x	x		x x
12002-48-1	Trichlorobenzenes			x	x		x
1163-19-5	Decabromodiphenyl ether		x	*	*		x x
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)			x	x		
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro		x	x	x		x x
87-86-5	Pentachlorophenol (PCP)			x	x		x x
LCL-60	Halogenated organic compounds (as AOX)			x	x		
87-68-3	Hexachlorobutadiene (HCBD)			x	x		x

Short Chemical List

Pollutant		Covered by PRTR?					
CAS Number	Pollutant Name	Australia NPI	Canada NPRI	EU E-PRTR	Kiev Protocol	Japan PRTR	US TRI
Ozone depleting substances							
LCL-62	Hydrochlorofluorocarbons (HCFCs)		*	x	x	*	*
LCL-63	Chlorofluorocarbons (CFCs)		*	x	x	*	*
LCL-65	Halons		*	x	x	*	*
Greenhouse gases (GHGs)							
124-38-9	Carbon dioxide	*	*	x	x	*	*
74-82-8	Methane	*	*	x	x	*	*
10024-97-2	Nitrous oxide	*	*	x	x	*	*
LCL-66	Hydrofluorocarbons (HFCs)	*	*	x	x	*	*
LCL-67	Perfluorocarbons (PFCs)	*	*	x	x	*	*
2551-62-4	Sulphur hexafluoride (SF6)	*	*	x	x	*	*
Other gases							
7664-41-7	Ammonia (NH3)	*	*	x	x		x
LCL-69	Chlorine and inorganic compounds (as HCl)	x	x	x	x		x
75-21-8	Ethylene oxide	x	x	x	x	x	x
630-08-0	Carbon monoxide	x	x	x	x		x
LCL-70	Fluorine and inorganic compounds (as HF)			x	x		
11104-93-1	Nitrogen oxides (NOx/NO2)	x	x	x	x		
2025-88-4	Sulphur oxides (SOx/SO2)	x	x	x	x		
Polycyclic aromatic hydrocarbons (PAHs)							
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)-fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)			x	x		
120-12-7	Anthracene		x	x	x	x	x
91-20-3	Naphthalene		x	x	x	x	x
Other organic substances							
75-05-8	Acetonitrile	x	x			x	x
107-02-8	Acrolein	x	x			x	x
79-06-1	Acrylamid	x	x			x	x
79-10-7	Acrylic acid and its water-soluble salts	x	x			x	x
80-62-6	Methyl methacrylate	x	x			x	x
107-13-1	Acrylonitrile	x	x			x	x
75-07-0	Acetaldehyde	x	x			x	x
62-53-3	Aniline	x	x			x	x
92-52-4	Biphenyl (1,1-biphenyl)	x	x			x	x
98-82-8	Cumene (1-methylethylbenzene)	x	x			x	x
110-54-3	n-Hexane	x	x			x	x
71-43-2	Benzene	x	x	x	x	x	x
100-41-4	Ethylbenzene	x	x	x	x	x	x
108-88-3	Toluene	x	x	x	x	x	x
1330-20-7	Xylene (mixed isomers)	x	x	x	x	x	x
106-99-0	1,3-Butadiene	x	x			x	x
75-15-0	Carbon disulfide / Carbon disulphide	x	x			x	x
101-68-8	Methylenebis(phenylisocyanate) (MDI)	x	x			x	x
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether	x	x			x	x
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether	x	x			x	x
50-00-0	Formaldehyde	x	x			x	x
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate	x	x			x	*
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate	x	x			x	*
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane	x	x			x	x
LCL-91	Organotin compounds (as total Sn)	x		x	x	x	*
LCL-92	Tributyltin and compounds			x	x		
LCL-93	Triphenyltin and compounds			x	x		
LCL-94	Phenols (as total C)			x	x		
108-95-2	Phenol	x	x	*	*	x	x
117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP) / bis(2-ethylhexyl)phthalate	x	x	x	x	x	x
84-74-2	Dibutyl phthalate	x	x			x	x
100-42-5	Styrene	x	x			x	x
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)		x	x	x	x	
LCL-100	Non-methane volatile organic compounds (NMVOC)			x	x		
LCL-107	Total organic carbon (TOC) (as total C or COD/3)			x	x		
Active substances of plant protection products or biocidal products							
15972-60-8	Alachlor (2-chloro-2',6'-diethy-N-(methoxymethyl)acetanilide)			x	x	x	x
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU			x	x	x	x
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)			x	x	x	x
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)			x	x	x	x
1582-09-8	Trifluralin (α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)			x	x	x	x
470-90-8	Chlorfenvinphos			x	x		
2921-88-2	Chlorpyrifos			x	x	x	
115-29-7	Endosulphan / 6,7,8,9,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide			x	x	x	
608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)			x	x		
34123-59-6	Isoproturon			x	x		

Short Chemical List

Pollutant		Thresholds, Australia: NPI						
CAS Number	Pollutant Name	Chemical Category	Usage (kg/year)	Annual Emission / Transfer (kg/year)	Fuel Combusted: Annual (kg/year)	Fuel Combusted: Hourly (kg/hr)	Energy Use (MWh)	Power Rating (MW)
Persistent Organic Pollutants (POPs)								
309-00-2	Aldrin							
57-74-9	Chlordane							
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane							
60-57-1	Dieldrin							
72-20-8	Endrin							
76-44-8	Heptachlor							
2385-85-5	Mirex							
8001-35-2	Toxaphene							
319-84-6	alpha-hexachlorocyclohexane							
319-85-7	beta-hexachlorocyclohexane							
58-89-9	Lindane / gamma-hexachlorocyclohexane							
143-50-0	Chlordecone							
608-93-5	Pentachlorobenzene							
118-74-1	Hexachlorobenzene (HCB)	1	10,000					
1336-36-3	Polychlorinated biphenyls (PCBs)	1	10,000					
36355-01-8	Hexabromobiphenyl							
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)							
207122-15-4	2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154)							
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)							
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)							
5436-43-1	Tetrabromodiphenyl ether							
60348-60-9	Pentabromodiphenyl ether							
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F) / Jpn: perfluoro(octane-1-sulfonic acid)							
LCL-2	Polychlorinated dioxins and furans (as TEF)	2b			2,000,000		60,000	20
Metals								
LCL-5	Antimony and compounds (as Sb)	1	10,000					
LCL-7	Arsenic and compounds (as As)	1, 2b	10,000		2,000,000		60,000	20
LCL-10	Cadmium and compounds (as Cd)	1, 2b	10,000		2,000,000		60,000	20
LCL-14	Chromium and chromium(III) compounds (as Cr)	1, 2b	10,000		2,000,000		60,000	20
LCL-15	Chromium(VI) compounds (as Cr)	1, 2b	10,000		2,000,000		60,000	20
LCL-17	Cobalt and compounds (as Co)	1	10,000					
LCL-19	Copper and compounds (as Cu)	1, 2b	10,000		2,000,000		60,000	20
LCL-21	Lead and compounds (as Pb)	1, 2b	10,000		2,000,000		60,000	20
LCL-24	Manganese and compounds (as Mn)	1	10,000					
LCL-26	Mercury and compounds (as Hg)	1b, 2b	5		2,000,000		60,000	20
LCL-28	Nickel and compounds (as Ni)	1, 2b	10,000		2,000,000		60,000	20
LCL-30	Selenium and compounds (as Se)	1	10,000					
LCL-32	Zinc and compounds (as Zn)	1	10,000					
Inorganic substances								
1332-21-4	Asbestos (friable)							
LCL-42	Cyanide (inorganic) compounds (as CN)	1	10,000					
74-90-8	Hydrogen cyanide							
LCL-43	Fluorides (as total F)	1, 2a, 2b	10,000		400,000	1,000	60,000	20
LCL-45	Phosphorus (total)	3		3,000				
LCL-50	PM10 - Particulate matter	2a, 2b			400,000	1,000	60,000	20
LCL-52	Chlorides (as total Cl)							
LCL-53	Total nitrogen	3		15,000				
Chlorinated and brominated organic substances								
107-06-2	1,2-Dichloroethane	1	10,000					
79-00-5	1,1,2-Trichloroethane	1	10,000					
71-55-6	1,1,1-trichloroethane							
79-34-5	1,1,2,2-Tetrachloroethane	1	10,000					
75-01-4	Vinyl chloride (Chloroethylene)	1	10,000					
79-01-6	Trichloroethylene	1	10,000					
127-18-4	Tetrachloroethylene	1	10,000					
75-09-2	Dichloromethane / methylene dichloride	1	10,000					
67-66-3	Trichloromethane / Chloroform	1	10,000					
56-23-5	Tetrachloromethane / Carbon tetrachloride							
12002-48-1	Trichlorobenzenes							
1163-19-5	Decabromodiphenyl ether							
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)							
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro							
87-86-5	Pentachlorophenol (PCP)							
LCL-60	Halogenated organic compounds (as AOX)							
87-68-3	Hexachlorobutadiene (HCBD)							

Short Chemical List

Pollutant		Thresholds, Australia: NPI						
CAS Number	Pollutant Name	Chemical Category	Usage (kg/year)	Annual Emission / Transfer (kg/year)	Fuel Combusted: Annual (kg/year)	Fuel Combusted: Hourly (kg/hr)	Energy Use (MWh)	Power Rating (MW)
Ozone depleting substances								
LCL-62	Hydrochlorofluorocarbons (HCFCs)							
LCL-63	Chlorofluorocarbons (CFCs)							
LCL-65	Halons							
Greenhouse gases (GHGs)								
124-38-9	Carbon dioxide							
74-82-8	Methane							
10024-97-2	Nitrous oxide							
LCL-66	Hydrofluorocarbons (HFCs)							
LCL-67	Perfluorocarbons (PFCs)							
2551-62-4	Sulphur hexafluoride (SF6)							
Other gases								
7664-41-7	Ammonia (NH3)	1	10,000					
LCL-69	Chlorine and inorganic compounds (as HCl)	1	10,000					
75-21-8	Ethylene oxide	1	10,000					
630-08-0	Carbon monoxide	1, 2a, 2b	10,000		400,000	1,000	60,000	20
LCL-70	Fluorine and inorganic compounds (as HF)							
11104-93-1	Nitrogen oxides (NOx/NO2)	2a, 2b			400,000	1,000	60,000	20
2025-88-4	Sulphur oxides (SOx/SO2)	1, 2a, 2b	10,000		400,000	1,000	60,000	20
Polycyclic aromatic hydrocarbons (PAHs)								
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)-fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)							
120-12-7	Anthracene							
91-20-3	Naphthalene							
Other organic substances								
75-05-8	Acetonitrile	1	10,000					
107-02-8	Acrolein	1	10,000					
79-06-1	Acrylamid	1	10,000					
79-10-7	Acrylic acid and its water-soluble salts	1	10,000					
80-62-6	Methyl methacrylate	1	10,000					
107-13-1	Acrylonitrile	1	10,000					
75-07-0	Acetaldehyde	1	10,000					
62-53-3	Aniline	1	10,000					
92-52-4	Biphenyl (1,1-biphenyl)	1	10,000					
98-82-8	Cumene (1-methylethylbenzene)	1	10,000					
110-54-3	n-Hexane	1	10,000					
71-43-2	Benzene	1	10,000					
100-41-4	Ethylbenzene	1	10,000					
108-88-3	Toluene	1	10,000					
1330-20-7	Xylene (mixed isomers)	1	10,000					
106-99-0	1,3-Butadiene	1	10,000					
75-15-0	Carbon disulfide / Carbon disulphide	1	10,000					
101-68-8	Methylenebis(phenylisocyanate) (MDI)	1	10,000					
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether	1	10,000					
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether	1	10,000					
50-00-0	Formaldehyde	1	10,000					
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate	1	10,000					
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate	1	10,000					
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane	1	10,000					
LCL-91	Organotin compounds (as total Sn)	1	10,000					
LCL-92	Tributyltin and compounds							
LCL-93	Triphenyltin and compounds							
LCL-94	Phenols (as total C)							
108-95-2	Phenol	1	10,000					
117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP) / bis(2-ethylhexyl)phthalate	1	10,000					
84-74-2	Dibutyl phthalate	1	10,000					
100-42-5	Styrene	1	10,000					
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)							
LCL-100	Non-methane volatile organic compounds (NMVOC)							
LCL-107	Total organic carbon (TOC) (as total C or COD/3)							
Active substances of plant protection products or biocidal products								
15972-60-8	Alachlor (2-chloro-2',6'-diethyl-N-(methoxymethyl)acetanilide)							
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU							
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)							
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)							
1582-09-8	Trifluralin (α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)							
470-90-8	Chlorfenvinphos							
2921-88-2	Chlorpyrifos							
115-29-7	Endosulphan / 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide							
608-73-1	1,2,3,4,5, 6-hexachlorocyclohexane (HCH)							
34123-59-6	Isoproturon							

Short Chemical List

Pollutant		Thresholds, Canada: NPRI						
CAS Number	Pollutant Name	Chemical Category	Manufacture, Process, or Otherwise Use (kg/year)	Release, Disposal, or Transfer for Recycling (kg/year)	Activity	Air Release (kg/year)	Concentration	Caveats/ Notes
Persistent Organic Pollutants (POPs)								
309-00-2	Aldrin							
57-74-9	Chlordane							
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane							
60-57-1	Dieldrin							
72-20-8	Endrin							
76-44-8	Heptachlor							
2385-85-5	Mirex							
8001-35-2	Toxaphene							
319-84-6	alpha-hexachlorocyclohexane							
319-85-7	beta-hexachlorocyclohexane							
58-89-9	Lindane / gamma-hexachlorocyclohexane							
143-50-0	Chlordecone							
608-93-5	Pentachlorobenzene							
118-74-1	Hexachlorobenzene (HCB)	3				✓		
1336-36-3	Polychlorinated biphenyls (PCBs)							
36355-01-8	Hexabromobiphenyl							
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)							
207122-15-4	2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154)							
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)							
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)							
5436-43-1	Tetrabromodiphenyl ether							
60348-60-9	Pentabromodiphenyl ether							
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F) / Jpn: perfluorooctane-1-sulfonic acid							
LCL-2	Polychlorinated dioxins and furans (as TEF)	3				✓		
Metals								
LCL-5	Antimony and compounds (as Sb)	1A	10,000				1.0%	
LCL-7	Arsenic and compounds (as As)	1B	50				0.1%	
LCL-10	Cadmium and compounds (as Cd)	1B	5				0.1%	
LCL-14	Chromium and chromium(III) compounds (as Cr)	1A	10,000				1.0%	
LCL-15	Chromium(VI) compounds (as Cr)	1B	50				0.1%	
LCL-17	Cobalt and compounds (as Co)	1A	10,000				1.0%	
LCL-19	Copper and compounds (as Cu)	1A	10,000				1.0%	
LCL-21	Lead and compounds (as Pb)	1B	50				0.1%	
LCL-24	Manganese and compounds (as Mn)	1A	10,000				1.0%	
LCL-26	Mercury and compounds (as Hg)	1B	5					
LCL-28	Nickel and compounds (as Ni)	1A	10,000				1.0%	
LCL-30	Selenium and compounds (as Se)	1B	100				0.0%	
LCL-32	Zinc and compounds (as Zn)	1A	10,000				1.0%	
Inorganic substances								
1332-21-4	Asbestos (friable)	1A	10,000				1.0%	
LCL-42	Cyanide (inorganic) compounds (as CN)	1A	10,000				1.0%	
74-90-8	Hydrogen cyanide	1A	10,000				1.0%	
LCL-43	Fluorides (as total F)							
LCL-45	Phosphorus (total)							
LCL-50	PM10 - Particulate matter	4				500		
LCL-52	Chlorides (as total Cl)							
LCL-53	Total nitrogen							
Chlorinated and brominated organic substances								
107-06-2	1,2-Dichloroethane	1A	10,000				1.0%	
79-00-5	1,1,2-Trichloroethane	1A	10,000				1.0%	
71-55-6	1,1,1-trichloroethane							
79-34-5	1,1,2,2-Tetrachloroethane	1A	10,000				1.0%	
75-01-4	Vinyl chloride (Chloroethylene)	1A	10,000				1.0%	
79-01-6	Trichloroethylene	1A	10,000				1.0%	
127-18-4	Tetrachloroethylene	1A	10,000				1.0%	
75-09-2	Dichloromethane / methylene dichloride	1A	10,000				1.0%	
67-66-3	Trichloromethane / Chloroform	1A	10,000				1.0%	
56-23-5	Tetrachloromethane / Carbon tetrachloride	1A	10,000				1.0%	
12002-48-1	Trichlorobenzenes							
1163-19-5	Decabromodiphenyl ether	1A	10,000				1.0%	
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)							
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro	1A	10,000				1.0%	
87-86-5	Pentachlorophenol (PCP)							
LCL-60	Halogenated organic compounds (as AOX)							
87-68-3	Hexachlorobutadiene (HCBD)							

Short Chemical List

Pollutant		Thresholds, Canada: NPRI						Caveats/ Notes
CAS Number	Pollutant Name	Chemical Category	Manufacture, Process, or Otherwise Use (kg/year)	Release, Disposal, or Transfer for Recycling (kg/year)	Activity	Air Release (kg/year)	Concentration	
Ozone depleting substances								
LCL-62	Hydrochlorofluorocarbons (HCFCs)							
LCL-63	Chlorofluorocarbons (CFCs)							
LCL-65	Halons							
Greenhouse gases (GHGs)								
124-38-9	Carbon dioxide							
74-82-8	Methane							
10024-97-2	Nitrous oxide							
LCL-66	Hydrofluorocarbons (HFCs)							
LCL-67	Perfluorocarbons (PFCs)							
2551-62-4	Sulphur hexafluoride (SF6)							
Other gases								
7664-41-7	Ammonia (NH3)		1A	10,000				1.0%
LCL-69	Chlorine and inorganic compounds (as HCl)		1A	10,000				1.0%
75-21-8	Ethylene oxide		1A	10,000				1.0%
630-08-0	Carbon monoxide		4			20,000		
LCL-70	Fluorine and inorganic compounds (as HF)							
11104-93-1	Nitrogen oxides (NOx/NO2)		4			20,000		
2025-88-4	Sulphur oxides (SOx/SO2)		4			20,000		
Polycyclic aromatic hydrocarbons (PAHs)								
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)-fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)							
120-12-7	Anthracene		1A	10,000				1.0%
91-20-3	Naphthalene		1A	10,000				1.0%
Other organic substances								
75-05-8	Acetonitrile		1A	10,000				1.0%
107-02-8	Acrolein		1A	10,000				1.0%
79-06-1	Acrylamid		1A	10,000				1.0%
79-10-7	Acrylic acid and its water-soluble salts		1A	10,000				1.0%
80-62-6	Methyl methacrylate		1A	10,000				1.0%
107-13-1	Acrylonitrile		1A	10,000				1.0%
75-07-0	Acetaldehyde		1A	10,000				1.0%
62-53-3	Aniline		1A	10,000				1.0%
92-52-4	Biphenyl (1,1-biphenyl)		1A	10,000				1.0%
98-82-8	Cumene (1-methylethylbenzene)		1A	10,000				1.0%
110-54-3	n-Hexane		1A	10,000				1.0%
71-43-2	Benzene		1A	10,000				1.0%
100-41-4	Ethylbenzene		1A	10,000				1.0%
108-88-3	Toluene		1A	10,000				1.0%
1330-20-7	Xylene (mixed isomers)		1A	10,000				1.0%
106-99-0	1,3-Butadiene		1A	10,000				1.0%
75-15-0	Carbon disulfide / Carbon disulphide		1A	10,000				1.0%
101-68-8	Methylenebis(phenylisocyanate) (MDI)		1A	10,000				1.0%
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether		1A	10,000				1.0%
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether		1A	10,000				1.0%
50-00-0	Formaldehyde		1A	10,000				1.0%
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate		1A	10,000				1.0%
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate		1A	10,000				1.0%
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane		1A	10,000				1.0%
LCL-91	Organotin compounds (as total Sn)							
LCL-92	Tributyltin and compounds							
LCL-93	Triphenyltin and compounds							
LCL-94	Phenols (as total C)							
108-95-2	Phenol		1A	10,000				1.0%
117-81-7	Di-(2-ethyl hexyl) phtalate (DEHP) / bis(2-ethylhexyl)phtalate		1A	10,000				1.0%
84-74-2	Dibutyl phtalate		1A	10,000				1.0%
100-42-5	Styrene		1A	10,000				1.0%
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)		1A	10,000				1.0%
LCL-100	Non-methane volatile organic compounds (NMVOC)							
LCL-107	Total organic carbon (TOC) (as total C or COD/3)							
Active substances of plant protection products or biocidal products								
15972-60-8	Alachlor (2-chloro-2',6'-diethyl-N-(methoxymethyl)acetanilide)							
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU							
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)							
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)							
1582-09-8	Trifluralin (α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)							
470-90-8	Chlorfenvinphos							
2921-88-2	Chlorpyrifos							
115-29-7	Endosulphan / 6,7,8,9,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide							
608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)							
34123-59-6	Isoproturon							

Short Chemical List

Pollutant	Thresholds, EU: E-PRTR			Thresholds, Kiev Protocol Implementation Guidelines						
	CAS Number	Pollutant Name	Release to Air (kg/year)	Release to Water (kg/year)	Release to Land (kg/year)	Release to Air (kg/year)	Release to Water (kg/year)	Release to Land (kg/year)	Manufacture, Process or Use (kg/year)	Off-Site Transfers
Persistent Organic Pollutants (POPs)										
309-00-2	Aldrin		1	1	1	1	1	1	1	1
57-74-9	Chlordane		1	1	1	1	1	1	1	1
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane		1	1	1	1	1	1	1	1
60-57-1	Dieldrin		1	1	1	1	1	1	1	1
72-20-8	Endrin		1	1	1	1	1	1	1	1
76-44-8	Heptachlor		1	1	1	1	1	1	1	1
2385-85-5	Mirex		1	1	1	1	1	1	1	1
8001-35-2	Toxaphene		1	1	1	1	1	1	1	1
319-84-6	alpha-hexachlorocyclohexane									
319-85-7	beta-hexachlorocyclohexane									
58-89-9	Lindane / gamma-hexachlorocyclohexane		1	1	1	1	1	1	1	1
143-50-0	Chlordecone		1	1	1	1	1	1	1	1
608-93-5	Pentachlorobenzene		1	1	1	1	1	1	50	5
118-74-1	Hexachlorobenzene (HCB)		10	1	1	10	1	1	5	1
1336-36-3	Polychlorinated biphenyls (PCBs)		0	0	0	0	0	0	50	1
36355-01-8	Hexabromobiphenyl		0	0	0					
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)									
207122-15-4	2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154)									
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)									
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)									
5436-43-1	Tetrabromodiphenyl ether									
60348-60-9	Pentabromodiphenyl ether									
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F) / Jpn: perfluoro(octane-1-sulfonic acid)									
LCL-2	Polychlorinated dioxins and furans (as TEF)		0	0	0	0	0	0	0	0
Metals										
LCL-5	Antimony and compounds (as Sb)									
LCL-7	Arsenic and compounds (as As)		20	5	5	20	5	5	50	50
LCL-10	Cadmium and compounds (as Cd)		10	5	5	10	5	5	5	5
LCL-14	Chromium and chromium(III) compounds (as Cr)									
LCL-15	Chromium(VI) compounds (as Cr)									
LCL-17	Cobalt and compounds (as Co)									
LCL-19	Copper and compounds (as Cu)		100	50	50	100	50	50	10,000	500
LCL-21	Lead and compounds (as Pb)		200	20	20	200	20	20	50	50
LCL-24	Manganese and compounds (as Mn)									
LCL-26	Mercury and compounds (as Hg)		10	1	1	10	1	1	5	5
LCL-28	Nickel and compounds (as Ni)		50	20	20	50	20	20	10,000	500
LCL-30	Selenium and compounds (as Se)									
LCL-32	Zinc and compounds (as Zn)		200	100	100	200	100	100	10,000	1,000
Inorganic substances										
1332-21-4	Asbestos (friable)		1	1	1	1	1	1	10,000	10
LCL-42	Cyanide (inorganic) compounds (as CN)		-	50	50	-	50	50	10,000	500
74-90-8	Hydrogen cyanide		200	-	-	200	-	-	10,000	-
LCL-43	Fluorides (as total F)		-	2,000	2,000	-	2,000	2,000	10,000	10,000
LCL-45	Phosphorus (total)		-	5,000	5,000	-	5,000	5,000	10,000	10,000
LCL-50	PM10 - Particulate matter		50,000	-	-	50,000	-	-	#	-
LCL-52	Chlorides (as total Cl)		-	2,000,000	2,000,000	-	2,000,000	2,000,000	10,000	2,000,000
LCL-53	Total nitrogen		-	50,000	50,000	-	50,000	50,000	10,000	10,000
Chlorinated and brominated organic substances										
107-06-2	1,2-Dichloroethane		1,000	10	10	1,000	10	10	10,000	100
79-00-5	1,1,2-Trichloroethane									
71-55-6	1,1,1-trichloroethane		100	-	-	100	-	-	10,000	1,000
79-34-5	1,1,2,2-Tetrachloroethane		50	-	-	50	-	-	10,000	1,000
75-01-4	Vinyl chloride (Chloroethylene)		1,000	10	10	1,000	10	10	10,000	100
79-01-6	Trichloroethylene		2,000	10	-	2,000	-	-	10,000	1,000
127-18-4	Tetrachloroethylene		2,000	10	-	2,000	-	-	10,000	1,000
75-09-2	Dichloromethane / methylene dichloride		1,000	10	10	1,000	10	10	10,000	100
67-66-3	Trichloromethane / Chloroform		500	10	-	500	-	-	10,000	1,000
56-23-5	Tetrachloromethane / Carbon tetrachloride		100	1	-	100	-	-	10,000	1,000
12002-48-1	Trichlorobenzenes		10	1	-	10	-	-	10,000	1,000
1163-19-5	Decabromodiphenyl ether									
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)		-	1	1	-	1	1	10,000	5
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro		-	1	1	-	1	1	10,000	10
87-86-5	Pentachlorophenol (PCP)		10	1	1	10	1	1	10,000	5
LCL-60	Halogenated organic compounds (as AOX)		-	1,000	1,000	-	1,000	1,000	10,000	1,000
87-68-3	Hexachlorobutadiene (HCBD)		-	1	1	-	1	1	10,000	5

Short Chemical List

Pollutant		Thresholds, EU: E-PRTR			Thresholds, Kiev Protocol Implementation Guidelines				
CAS Number	Pollutant Name	Release to Air (kg/year)	Release to Water (kg/year)	Release to Land (kg/year)	Release to Air (kg/year)	Release to Water (kg/year)	Release to Land (kg/year)	Manufacture, Process or Use (kg/year)	Off-Site Transfers
Ozone depleting substances									
LCL-62	Hydrochlorofluorocarbons (HCFCs)	1	-	-	1	-	-	10,000	100
LCL-63	Chlorofluorocarbons (CFCs)	1	-	-	1	-	-	10,000	100
LCL-65	Halons	1	-	-	1	-	-	10,000	100
Greenhouse gases (GHGs)									
124-38-9	Carbon dioxide	100,000,000	-	-	100,000,000	-	-	#	-
74-82-8	Methane	100,000	-	-	100,000	-	-	#	-
10024-97-2	Nitrous oxide	10,000	-	-	10,000	-	-	#	-
LCL-66	Hydrofluorocarbons (HFCs)	100	-	-	100	-	-	#	-
LCL-67	Perfluorocarbons (PFCs)	100	-	-	100	-	-	#	-
2551-62-4	Sulphur hexafluoride (SF6)	50	-	-	50	-	-	#	-
Other gases									
7664-41-7	Ammonia (NH3)	10,000	-	-	10,000	-	-	10,000	-
LCL-69	Chlorine and inorganic compounds (as HCl)	10,000	-	-	10,000	-	-	10,000	-
75-21-8	Ethylene oxide	1,000	10	10	1,000	10	10	10,000	100
630-08-0	Carbon monoxide	500,000	-	-	500,000	-	-	#	-
LCL-70	Fluorine and inorganic compounds (as HF)	5,000	-	-	5,000	-	-	10,000	-
11104-93-1	Nitrogen oxides (NOx/NO2)	100,000	-	-	100,000	-	-	#	-
2025-88-4	Sulphur oxides (SOx/SO2)	150,000	-	-	150,000	-	-	#	-
Polycyclic aromatic hydrocarbons (PAHs)									
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)-fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)	50	5	5	50	5	5	50	50
120-12-7	Anthracene	50	1	1	50	1	1	50	50
91-20-3	Naphthalene	100	10	10	100	10	10	10,000	100
Other organic substances									
75-05-8	Acetonitrile								
107-02-8	Acrolein								
79-06-1	Acrylamid								
79-10-7	Acrylic acid and its water-soluble salts								
80-62-6	Methyl methacrylate								
107-13-1	Acrylonitrile								
75-07-0	Acetaldehyde								
62-53-3	Aniline								
92-52-4	Biphenyl (1,1-biphenyl)								
98-82-8	Cumene (1-methylethylbenzene)								
110-54-3	n-Hexane								
71-43-2	Benzene	1,000	200	200	1,000	200	200	10,000	2,000
100-41-4	Ethylbenzene	-	200	200	-	200	200	10,000	2,000
108-88-3	Toluene	-	200	200	-	200	200	10,000	2,000
1330-20-7	Xylene (mixed isomers)	-	200	200	-	200	200	10,000	2,000
106-99-0	1,3-Butadiene								
75-15-0	Carbon disulfide / Carbon disulphide								
101-68-8	Methylenebis(phenylisocyanate) (MDI)								
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether								
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether								
50-00-0	Formaldehyde								
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate								
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate								
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane								
LCL-91	Organotin compounds (as total Sn)	-	50	50	-	50	50	10,000	50
LCL-92	Tributyltin and compounds	-	1	1	-	1	1	10,000	5
LCL-93	Triphenyltin and compounds	-	1	1	-	1	1	10,000	5
LCL-94	Phenols (as total C)	-	20	20	-	20	20	10,000	200
108-95-2	Phenol								
117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP) / bis(2-ethylhexyl)phthalate	10	1	1	10	1	1	10,000	100
84-74-2	Dibutyl phthalate								
100-42-5	Styrene								
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	-	1	1	-	1	1	10,000	5
LCL-100	Non-methane volatile organic compounds (NMVOC)	100,000	-	-	100,000	-	-	#	-
LCL-107	Total organic carbon (TOC) (as total C or COD/3)	-	50,000	-	-	50,000	-	##	-
Active substances of plant protection products or biocidal products									
15972-60-8	Alachlor (2-chloro-2',6'-diethyl-N-(methoxymethyl)acetanilide)	-	1	1	-	-	-	10,000	5
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU	-	1	1	-	1	1	10,000	5
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)	-	1	1	-	1	1	10,000	5
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)	-	1	1	-	1	1	10,000	5
1582-09-8	Trifluralin (α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)	-	1	1	-	1	1	10,000	5
470-90-8	Chlorfenvinphos	-	1	1	-	1	1	10,000	5
2921-88-2	Chlorpyrifos	-	1	1	-	1	1	10,000	5
115-29-7	Endosulphan / 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide	-	1	1	-	1	1	10,000	5
608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)	10	1	1	10	1	1	10	1
34123-59-6	Isoproturon	-	1	1	-	1	1	10,000	5

Short Chemical List

Pollutant		Thresholds, Japan: PRTR			Thresholds, US: TRI				
CAS Number	Pollutant Name	Chemical Category	Usage (kg/year)	Concentration	Manufacture (kg/year)	Process (kg/year)	Otherwise Use (kg/year)	De Minimis % Limit	Caveats/ Notes
Persistent Organic Pollutants (POPs)									
309-00-2	Aldrin				45	45	45	‡	
57-74-9	Chlordane				5	5	5	‡	
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane								
60-57-1	Dieldrin								
72-20-8	Endrin								
76-44-8	Heptachlor				5	5	5	‡	
2385-85-5	Mirex								
8001-35-2	Toxaphene				5	5	5	‡	
319-84-6	alpha-hexachlorocyclohexane				11,340	11,340	4,536	0.1%	
319-85-7	beta-hexachlorocyclohexane								
58-89-9	Lindane / gamma-hexachlorocyclohexane				11,340	11,340	4,536	0.1%	
143-50-0	Chlordecone								
608-93-5	Pentachlorobenzene				5	5	5	‡	
118-74-1	Hexachlorobenzene (HCB)				5	5	5	‡	
1336-36-3	Polychlorinated biphenyls (PCBs)	I	1,000	1%	5	5	5	‡	
36355-01-8	Hexabromobiphenyl								
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)								
207122-15-4	2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154)								
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)								
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)								
5436-43-1	Tetrabromodiphenyl ether								
60348-60-9	Pentabromodiphenyl ether								
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonfyl fluoride (PFOS-F) / Jpn: perfluoro(octane-1-sulfonic acid)	I	1,000	1%					
LCL-2	Polychlorinated dioxins and furans (as TEF)				0	0	0	‡	
Metals									
LCL-5	Antimony and compounds (as Sb)	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-7	Arsenic and compounds (as As)	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-10	Cadmium and compounds (as Cd)	S	500	0%	11,340	11,340	4,536	1.0%	
LCL-14	Chromium and chromium(III) compounds (as Cr)	I	1,000	1%				1.0%	
LCL-15	Chromium(VI) compounds (as Cr)	S	500	0%	11,340	11,340	4,536	0.1%	
LCL-17	Cobalt and compounds (as Co)	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-19	Copper and compounds (as Cu)	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-21	Lead and compounds (as Pb)	S	500	0%	45	45	45	‡	
LCL-24	Manganese and compounds (as Mn)	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-26	Mercury and compounds (as Hg)	I	1,000	1%	5	5	5	‡	
LCL-28	Nickel and compounds (as Ni)	S	500	0%	11,340	11,340	4,536	1.0%	
LCL-30	Selenium and compounds (as Se)	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-32	Zinc and compounds (as Zn)	I	1,000	1%	11,340	11,340	4,536	1.0%	
Inorganic substances									
1332-21-4	Asbestos (friable)	S	500	0%	11,340	11,340	4,536	0.1%	
LCL-42	Cyanide (inorganic) compounds (as CN)	I	1,000	1%	11,340	11,340	4,536	1.0%	
74-90-8	Hydrogen cyanide				11,340	11,340	4,536	1.0%	
LCL-43	Fluorides (as total F)	I	1,000	1%					
LCL-45	Phosphorus (total)								
LCL-50	PM10 - Particulate matter								
LCL-52	Chlorides (as total Cl)								
LCL-53	Total nitrogen								
Chlorinated and brominated organic substances									
107-06-2	1,2-Dichloroethane	I	1,000	1%	11,340	11,340	4,536	0.1%	
79-00-5	1,1,2-Trichloroethane	I	1,000	1%	11,340	11,340	4,536	1.0%	
71-55-6	1,1,1-trichloroethane	I	1,000	1%	11,340	11,340	4,536	1.0%	
79-34-5	1,1,2,2-Tetrachloroethane				11,340	11,340	4,536	1.0%	
75-01-4	Vinyl chloride (Chloroethylene)	S	500	0%	11,340	11,340	4,536	0.1%	
79-01-6	Trichloroethylene	I	1,000	1%	11,340	11,340	4,536	0.1%	
127-18-4	Tetrachloroethylene	I	1,000	1%	11,340	11,340	4,536	0.1%	
75-09-2	Dichloromethane / methylene dichloride	I	1,000	1%	11,340	11,340	4,536	0.1%	
67-66-3	Trichloromethane / Chloroform	I	1,000	1%	11,340	11,340	4,536	0.1%	
56-23-5	Tetrachloromethane / Carbon tetrachloride	I	1,000	1%	11,340	11,340	4,536	0.1%	
12002-48-1	Trichlorobenzenes	I	1,000	1%					
1163-19-5	Decabromodiphenyl ether	I	1,000	1%	11,340	11,340	4,536	1.0%	
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)								
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro	I	1,000	1%	11,340	11,340	4,536	1.0% or 0.1% 0.1% de minir	
87-86-5	Pentachlorophenol (PCP)	I	1,000	1%	11,340	11,340	4,536	0.1%	
LCL-60	Halogenated organic compounds (as AOX)								
87-68-3	Hexachlorobutadiene (HCBD)				11,340	11,340	4,536	1.0%	

Short Chemical List

Pollutant		Thresholds, Japan: PRTR			Thresholds, US: TRI				
CAS Number	Pollutant Name	Chemical Category	Usage (kg/year)	Concentration	Manufacture (kg/year)	Process (kg/year)	Otherwise Use (kg/year)	De Minimis Limit	% Caveats/ Notes
Ozone depleting substances									
LCL-62	Hydrochlorofluorocarbons (HCFCs)								
LCL-63	Chlorofluorocarbons (CFCs)								
LCL-65	Halons								
Greenhouse gases (GHGs)									
124-38-9	Carbon dioxide								
74-82-8	Methane								
10024-97-2	Nitrous oxide								
LCL-66	Hydrofluorocarbons (HFCs)								
LCL-67	Perfluorocarbons (PFCs)								
2551-62-4	Sulphur hexafluoride (SF6)								
Other gases									
7664-41-7	Ammonia (NH3)				11,340	11,340	4,536	1.0%	
LCL-69	Chlorine and inorganic compounds (as HCl)				11,340	11,340	4,536	1.0%	
75-21-8	Ethylene oxide	S	500	0%	11,340	11,340	4,536	0.1%	
630-08-0	Carbon monoxide								
LCL-70	Fluorine and inorganic compounds (as HF)								
11104-93-1	Nitrogen oxides (NOx/NO2)								
2025-88-4	Sulphur oxides (SOx/SO2)								
Polycyclic aromatic hydrocarbons (PAHs)									
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)-fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)								
120-12-7	Anthracene	I	1,000	1%	11,340	11,340	4,536	1.0%	
91-20-3	Naphthalene	I	1,000	1%	11,340	11,340	4,536	0.1%	
Other organic substances									
75-05-8	Acetonitrile	I	1,000	1%	11,340	11,340	4,536	1.0%	
107-02-8	Acrolein	I	1,000	1%	11,340	11,340	4,536	1.0%	
79-06-1	Acrylamid	I	1,000	1%	11,340	11,340	4,536	0.1%	
79-10-7	Acrylic acid and its water-soluble salts	I	1,000	1%	11,340	11,340	4,536	1.0%	
80-62-6	Methyl methacrylate	I	1,000	1%	11,340	11,340	4,536	1.0%	
107-13-1	Acrylonitrile	I	1,000	1%	11,340	11,340	4,536	0.1%	
75-07-0	Acetaldehyde	I	1,000	1%	11,340	11,340	4,536	0.1%	
62-53-3	Aniline	I	1,000	1%	11,340	11,340	4,536	1.0%	
92-52-4	Biphenyl (1,1-biphenyl)	I	1,000	1%	11,340	11,340	4,536	1.0%	
98-82-8	Cumene (1-methylethylbenzene)	I	1,000	1%	11,340	11,340	4,536	1.0%	
110-54-3	n-Hexane	I	1,000	1%	11,340	11,340	4,536	1.0%	
71-43-2	Benzene	S	500	0%	11,340	11,340	4,536	0.1%	
100-41-4	Ethylbenzene	I	1,000	1%	11,340	11,340	4,536	0.1%	
108-88-3	Toluene	I	1,000	1%	11,340	11,340	4,536	1.0%	
1330-20-7	Xylene (mixed isomers)	I	1,000	1%	11,340	11,340	4,536	1.0%	
106-99-0	1,3-Butadiene	S	500	0%	11,340	11,340	4,536	0.1%	
75-15-0	Carbon disulfide / Carbon disulphide	I	1,000	1%	11,340	11,340	4,536	1.0%	
101-68-8	Methylenebis(phenylisocyanate) (MDI)	I	1,000	1%	11,340	11,340	4,536	1.0%	
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether	I	1,000	1%	11,340	11,340	4,536	1.0%	
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether	I	1,000	1%	11,340	11,340	4,536	1.0%	
50-00-0	Formaldehyde	S	500	0%	11,340	11,340	4,536	0.1%	
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate	I	1,000	1%					
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate	I	1,000	1%					
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane	I	1,000	1%	11,340	11,340	4,536	0.1%	
LCL-91	Organotin compounds (as total Sn)	I	1,000	1%					
LCL-92	Tributyltin and compounds								
LCL-93	Triphenyltin and compounds								
LCL-94	Phenols (as total C)								
108-95-2	Phenol	I	1,000	1%	11,340	11,340	4,536	1.0%	
117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP) / bis(2-ethylhexyl)phthalate	I	1,000	1%	11,340	11,340	4,536	0.1%	
84-74-2	Dibutyl phthalate	I	1,000	1%	11,340	11,340	4,536	1.0%	
100-42-5	Styrene	I	1,000	1%	11,340	11,340	4,536	0.1%	
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	I	1,000	1%					
LCL-100	Non-methane volatile organic compounds (NMVOC)								
LCL-107	Total organic carbon (TOC) (as total C or COD/3)								
Active substances of plant protection products or biocidal products									
15972-60-8	Alachlor (2-chloro-2',6'-diethyl-N-(methoxymethyl)acetanilide)	I	1,000	1%	11,340	11,340	4,536	1.0%	
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU	I	1,000	1%	11,340	11,340	4,536	1.0%	
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)	I	1,000	1%	11,340	11,340	4,536	1.0%	
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)	I	1,000	1%	11,340	11,340	4,536	1.0%	
1582-09-8	Trifluralin (α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)	I	1,000	1%	45	45	45	‡	
470-90-8	Chlorfenvinphos								
2921-88-2	Chlorpyrifos	I	1,000	1%					
115-29-7	Endosulphan / 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide	I	1,000	1%					
608-73-1	1,2,3,4,5, 6-hexachlorocyclohexane (HCH)								
34123-59-6	Isoprotruron								

Short Chemical List

Pollutant	CAS Number	Pollutant Name	# Facilities Reporting Pollutant					Reporting Score				
			Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	US TRI	Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	US TRI
Persistent Organic Pollutants (POPs)												
309-00-2	Aldrin				10		4		••		••	
57-74-9	Chlordane			0		15		○		••		
50-29-3	DDT / 1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane			2				•				
60-57-1	Dieldrin			14				••				
72-20-8	Endrin			8				•				
76-44-8	Heptachlor			1		13		•		••		
2385-85-5	Mirex			0				○				
8001-35-2	Toxaphene			3		12		•		••		
319-84-6	alpha-hexachlorocyclohexane					0				○		
319-85-7	beta-hexachlorocyclohexane											
58-89-9	Lindane / gamma-hexachlorocyclohexane			9		6		•		••		
143-50-0	Chlordecone			0				○				
608-93-5	Pentachlorobenzene			11		18		••		••		
118-74-1	Hexachlorobenzene (HCB)		2	232	3	76	•	••	•	••		
1336-36-3	Polychlorinated biphenyls (PCBs)		0		111	3,045	90	○	••	•••	••	
36355-01-8	Hexabromobiphenyl			3					•			
68631-49-2	2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)											
207122-15-4	2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154)											
446255-22-7	2,2',3,3',4,5',6'-heptabromodiphenyl ether (BDE-175)											
207122-16-5	2,2',3,4,4',5',6'-heptabromodiphenyl ether (BDE-183)											
5436-43-1	Tetrabromodiphenyl ether											
60348-60-9	Pentabromodiphenyl ether											
LCL-1	Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F) / Jpn: perfluoro(octane-1-sulfonic acid)					1				•		
LCL-2	Polychlorinated dioxins and furans (as TEF)	867	243	246		1,087	••	••	••	•••		
Metals												
LCL-5	Antimony and compounds (as Sb)	337	72		659	461	••	••		•••	•••	
LCL-7	Arsenic and compounds (as As)	1,143	298	936	3,121	331	••	•••	••	•••	•••	
LCL-10	Cadmium and compounds (as Cd)	1,080	377	577	3,116	85	••	•••	••	•••	••	
LCL-14	Chromium and chromium(III) compounds (as Cr)	1,194	389		4,029		••	•••		•••		
LCL-15	Chromium(VI) compounds (as Cr)	654	193		3,556		••	••		•••		
LCL-17	Cobalt and compounds (as Co)	470	97		396	408	••	••		••	•••	
LCL-19	Copper and compounds (as Cu)	1,223	464	1,108	3,475	1,689	•••	•••	••	•••	•••	
LCL-21	Lead and compounds as (Pb)	1,223	674	814	3,369	3,778	•••	•••	••	•••	•••	
LCL-24	Manganese and compounds (as Mn)	663	523		4,198	1,648	••	•••		•••	•••	
LCL-26	Mercury and compounds (as Hg)	1,223	300	900	3,044	1,156	•••	•••	••	•••	•••	
LCL-28	Nickel and compounds (as Ni)	1,191	327	1,512	1,043	1,115	••	•••	•••	•••	•••	
LCL-30	Selenium and compounds (as Se)	288	42		3,061	117	••	••		•••	••	
LCL-32	Zinc and compounds (as Zn)	800	537	2,307	3,827	2,919	••	•••	•••	•••	•••	
Inorganic substances												
1332-21-4	Asbestos (friable)		67	102	70	38		••	••	••	••	
LCL-42	Cyanide (inorganic) compounds (as CN)	65	33	196	3,283	201	••	••	••	•••	•••	
74-90-8	Hydrogen cyanide		6	71		89		••	••	••	••	
LCL-43	Fluorides (as total F)	1,026		462	3,675		••		••	•••		
LCL-45	Phosphorus (total)	381		1,553			••		•••			
LCL-50	PM10 - Particulate matter	1,932	3,393	565			•••	•••	••			
LCL-52	Chlorides (as total Cl)			578					••			
LCL-53	Total nitrogen	384		1,530			••		•••			
Chlorinated and brominated organic substances												
107-06-2	1,2-Dichloroethane	121	31	68	3,105	62	••	••	••	•••	••	
79-00-5	1,1,2-Trichloroethane	109	2		3,036	23	••	••		•••	••	
71-55-6	1,1,1-trichloroethane			28	3,030	31			••	•••	••	
79-34-5	1,1,2,2-Tetrachloroethane	0	0	5		17	○	○	•	••	••	
75-01-4	Vinyl chloride (Chloroethylene)	125	4	40	41	44	••	••	••	••	••	
79-01-6	Trichloroethylene	113	26	48	3,515	260	••	••	••	•••	•••	
127-18-4	Tetrachloroethylene	116	31	62	3,274	253	••	••	••	•••	•••	
75-09-2	Dichloromethane / methylene dichloride	134	39	189	4,335	302	••	••	••	•••	•••	
67-66-3	Trichloromethane / Chloroform	123	13	123	269	83	••	••	••	••	••	
56-23-5	Tetrachloromethane / Carbon tetrachloride	2	42	3,050	46			••	••	•••	••	
12002-48-1	Trichlorobenzenes			35	10				••	••		
1163-19-5	Decabromodiphenyl ether		5	66	113			••		••	••	
LCL-55	Brominated diphenylethers (PBDE) (total mass of penta-BDE, octa-BDE and deca-BDE)			13					••			
85535-84-8	Chloro-alkanes (C10-C13) / Polychlorinated alkanes (C10 to C13) / Alkanes, C10-13, chloro		1	15	3	21		••	••	••	••	
87-86-5	Pentachlorophenol (PCP)			24	0	31			••	○	••	
LCL-60	Halogenated organic compounds (as AOX)			373					••			
87-68-3	Hexachlorobutadiene (HCBD)			11		8			••		••	

Short Chemical List

Pollutant		# Facilities Reporting Pollutant					Reporting Score				
CAS Number	Pollutant Name	Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	US TRI	Australia NPI	Canada NPRI	EU E-PRTR	Japan PRTR	US TRI
Ozone depleting substances											
LCL-62	Hydrochlorofluorocarbons (HCFCs)			621					••		
LCL-63	Chlorofluorocarbons (CFCs)			288					••		
LCL-65	Halons			11					••		
Greenhouse gases (GHGs)											
124-38-9	Carbon dioxide			2,924					•••		
74-82-8	Methane			1,634					•••		
10024-97-2	Nitrous oxide			638					••		
LCL-66	Hydrofluorocarbons (HFCs)			247					••		
LCL-67	Perfluorocarbons (PFCs)			47					••		
2551-62-4	Sulphur hexafluoride (SF6)			36					••		
Other gases											
7664-41-7	Ammonia (NH3)			5,798		2,315	••	•••	•••		•••
LCL-69	Chlorine and inorganic compounds (as HCl)	355	157	449		791	••	••	••		••
75-21-8	Ethylene oxide	4	10	10	201	116	••	••	••	••	••
630-08-0	Carbon monoxide	2,038	2,808	560			•••	•••	••		
LCL-70	Fluorine and inorganic compounds (as HF)			284					••		
11104-93-1	Nitrogen oxides (NOx/NO2)	1,956	3,637	2,717			•••	•••	•••		
2025-88-4	Sulphur oxides (SOx/SO2)	1,961	818	1,323			•••	•••	•••		
Polycyclic aromatic hydrocarbons (PAHs)											
LCL-74	Polycyclic aromatic hydrocarbons (PAHs) as benzo(a)pyrene (50-32-8), benzo(b)fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5)			196					••		
120-12-7	Anthracene		27	62	25	72		••	••	••	••
91-20-3	Naphthalene		85	139	271	1,204		••	••	••	•••
Other organic substances											
75-05-8	Acetonitrile	110	12		288	124	••	••		••	••
107-02-8	Acrolein	10	12		9	106	•	••		••	••
79-06-1	Acrylamid	8	4		108	75	•	••		••	••
79-10-7	Acrylic acid and its water-soluble salts	11	8		227	184	•	••		••	•••
80-62-6	Methyl methacrylate	15	22		315	296	••	••		••	•••
107-13-1	Acrylonitrile	116	7		153	99	••	••		••	••
75-07-0	Acetaldehyde	135	59		62	388	••	••		••	•••
62-53-3	Aniline	1	21		85	47	•	••		••	••
92-52-4	Biphenyl (1,1-biphenyl)	19	23		36	106	••	••		••	••
98-82-8	Cumene (1-methylethylbenzene)	840	30		113	320	••	••		••	•••
110-54-3	n-Hexane	571	468		16,234	1,261	••	•••		•••	•••
71-43-2	Benzene	687	352	395	18,959	941	••	•••	••	•••	•••
100-41-4	Ethylbenzene	721	251	91	17,660	1,318	••	••	••	•••	•••
108-88-3	Toluene	923	702	113	21,091	2,274	••	•••	••	•••	•••
1330-20-7	Xylene (mixed isomers)	1,064	687	106	22,297	2,112	••	•••	••	•••	•••
106-99-0	1,3-Butadiene	158	59		52	194	••	••		••	•••
75-15-0	Carbon disulfide / Carbon disulphide	130	42		37	138	••	••		••	••
101-68-8	Methylenebis(phenylisocyanate) (MDI)	7	64		500	0	•	••		••	○
110-80-5	2-Ethoxyethanol / ethylene glycol monoethyl ether	1	6		199	24	•	••		••	••
109-86-4	Methoxyethanol / ethylene glycol monomethyl ether	1	4		138	21	•	••		••	••
50-00-0	Formaldehyde	377	518		705	654	••	•••		•••	•••
110-49-6	2-Methoxyethanol acetate / 2-methoxyethyl acetate	0	0		22		○	○		••	
111-15-9	2-Ethoxyethanol acetate / 2-ethoxyethyl acetate	1	2		138		•	••		••	
101-14-4	4,4'-Methylene-bis(2-chloroaniline) (MOCA) / 3,3'-dichloro-4,4'-diaminodiphenylmethane	0	1		63	20	○	••		••	••
LCL-91	Organotin compounds (as total Sn)	8		4	165		•		•	••	
LCL-92	Tributyltin and compounds			6					•		
LCL-93	Triphenyltin and compounds			5					•		
LCL-94	Phenols (as total C)			411					••		
108-95-2	Phenol	165	72		602	578	••	••		•••	•••
117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP) / bis(2-ethylhexyl)phthalate	8	29	301	704	191	•	••	••	•••	•••
84-74-2	Dibutyl phthalate	5	15		236	102	•	••		••	••
100-42-5	Styrene	179	178		731	1,272	••	••		•••	•••
LCL-95	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)		43	264	0			••	••	••	○
LCL-100	Non-methane volatile organic compounds (NMVOC)			909					••		
LCL-107	Total organic carbon (TOC) (as total C or COD/3)			1,925					•••		
Active substances of plant protection products or biocidal products											
15972-60-8	Alachlor (2-chloro-2',6'-diethy-N-(methoxymethyl)acetanilide)			4	3	5			•	••	••
330-54-1	Diuron (3-(3,4-dichlorophenyl)-1,1-dimethylurea) / DCMU			86	40	19			••	••	••
1912-24-9	Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine)			6	1	22			•	•	••
122-34-9	Simazine (2-chloro-4,6-bis(ethylamino)-1,3,5-triazine)			8	3,031	6			•	•••	••
1582-09-8	Trifluralin (α,α,α-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)			1	3	30			•	••	••
470-90-8	Chlorfenvinphos			1					•		
2921-88-2	Chlorpyrifos			0	2				○	•	
115-29-7	Endosulphan / 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepine 3-oxide			2	0				•	○	
608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)			5					•		
34123-59-6	Isoproturon			42					••		