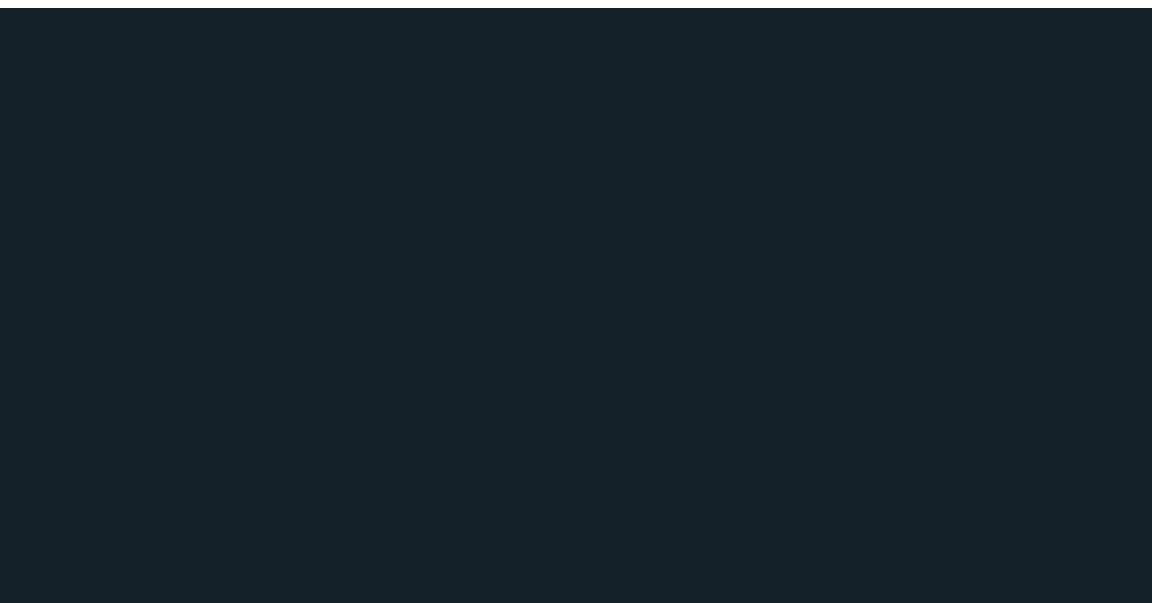


[Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers] in North America





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[1] Introduction

North Americans are concerned about the effect of chemicals on their health and the environment. Pollutant Release and Transfer Registers (PRTRs) are designed to track the quantities of chemicals that are released from industrial activities into the air, water or land and transferred for further management or disposal. Results are fed into a national database, which allows information to be made available to the public by chemical, community or facility and enables assessment of long and short-term trends. This Action Plan is the ongoing result of efforts to enhance the comparability of the individual countries' PRTR systems and lays out the strategy for improving the information available for decision-making on a North American basis. Information for decision-making is an integral component of the Strategic Plan of the Commission for Environmental Cooperation (CEC). Thus, this Action Plan will contribute directly to the goals and objectives of the CEC cooperative program.

A renewed commitment toward comparability of PRTRs in North America is important following the initiation of the mandatory reporting system in Mexico. Although the countries have made good progress in this area, significant work is still needed, as outlined in Sections 2 and 3 of the Action Plan. Strengthening the underlying compatibility and reliability of PRTRs in all three countries will provide an effective means for tracking chemicals throughout the continent on a multi-media basis. This will in turn strengthen the global competitiveness and leadership of North American industry by promoting the use of innovative pollution prevention practices and technologies. Comparable PRTR systems, in light of the increasing levels of trade and economic integration throughout the region, enable industry, government, and the North American public to measure and improve environmental performance. In turn, public transparency regarding the management and use of chemicals by industrial facilities promotes accountability and encourages the utilization of sustainable environmental management practices. Thus, PRTRs are an important indicator and driver for improved environmental performance and can be used by industry, the public, and by governments at the national, state/provincial, and municipal levels to advance conservation and protection of the North American environment.



PRTRs are an innovative tool, supporting environmental public right-to-know programs. PRTRs track certain chemicals and, thereby, help industry, government and citizens identify ways to prevent pollution, reduce waste generation, decrease releases and transfers and increase responsibility for chemical use. For example, many corporations use the data to report on their environmental performance and to identify opportunities for reducing/preventing pollution. Governments can use PRTR data to guide program priorities and evaluate results. Communities and citizens use PRTR data to gain an understanding of the sources and management of pollutants and as a basis for dialogue with facilities and governments.

For 10 years the CEC has been matching the PRTR data from the United States and Canada (and will shortly include data from the newly established mandatory Mexican PRTR) into a North American picture in its annual *Taking Stock* reports. The CEC Council's Puebla Declaration, which resulted in large part from a review of the previous 10 years of CEC programs, called for three broad priorities for the years ahead, including information for decision-making, capacity building, and trade and the environment. PRTR data provide all decision-makers, government, industry, communities and citizens with fundamental information for tracking progress in reducing toxic chemical releases to the environment.

PRTRs are advancing in many countries throughout the world and several international efforts are underway to support them. For example, the OECD established a task force to aid these efforts and has called upon the CEC to share its experience in matching data from the North American countries and in developing this Action Plan to better harmonize individual countries' systems in the region.



[1.1]

PRTRs: A Priority Focus in North America

The CEC was mandated under the terms of the North American Agreement on Environmental Cooperation to facilitate cooperation and public participation in fostering the conservation, protection and enhancement of the North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links between Canada, the United States and Mexico. The CEC recognizes the importance of pollutant release and transfer registers and has had an active program since 1996. The cornerstone of the project is the annual publication of the *Taking Stock* report on pollutant releases and transfers in North America.

Each of the three North American countries has a PRTR. They are:

- the National Pollutant Release Inventory (NPRI) in Canada;
- the Toxics Release Inventory (TRI) in the United States; and
- the *Registro de Emisiones y Transferencia de Contaminantes* (RETC) in Mexico.

The US TRI has been in operation since 1987 and currently covers some 650 chemicals. The first year of reporting under the Canadian NPRI was 1993. The NPRI list includes over 270 substances including the recent addition of criteria air contaminants. Mexico's voluntary PRTR took effect in 1994, registering around 100 chemicals. The legal framework for a compulsory, publicly available PRTR was enacted in 2001. In January of 2005, Mexico issued the form and instructions for the annual operating certificate (*Cédula de Operación Anual*—COA) to compile PRTR information, while in March it issued the initial list of 104 chemicals for the mandatory reporting of 2004 information. Thus, 2005 is the first year of mandatory reporting in Mexico.

While there are many different environmental reporting databases, the CEC Council Resolution 00-07 identified a set of basic characteristics central to the effectiveness of PRTR systems:

- reporting on individual substances,
- reporting by individual facilities,
- covering all environmental media (i.e., releases to air, water, land and underground injections, and transfers off-site for further management),
- mandatory, periodic reporting (i.e., annually),
- public disclosure of reported data on a facility- and chemical-specific basis,
- standardized reporting using computerized data management,
- limited data confidentiality and indicating what is being held confidential,
- comprehensive scope, and
- mechanism for public comments and input from all interested parties, to improve the system.

The PRTRs in North America share some of the same elements and differ in others. Annex 1 provides an overview of the characteristics of each PRTR.

[1.2] Goals and Rationale for an Action Plan to Enhance Data Comparability

Since the first CEC report on the North American PRTR systems (*Putting the Pieces Together*, 1996), officials from the three North American countries have been exchanging information and working together to increase the comparability of the PRTR data collected in North America. This Action Plan provides a framework for the countries to address differences between the national PRTR programs and to take steps to increase comparability.

The goal of the Action Plan is to increase the amount of data comparable on a continent-wide basis, in order to gain a more complete picture of the sources, quantities and handling of pollutant releases and transfers in North America.

HIGH-LEVEL COMMITMENT TO ENHANCING THE COMPARABILITY OF PRTRS IN NORTH AMERICA

In June 1997, the CEC Council, composed of the top environmental officials in the three North American countries, signed Council Resolution 97-04: Promoting Comparability of Pollutant Release and Transfer Registers (PRTRs). In part, the Council agreed to develop an implementation plan to enhance the comparability of North American PRTRs and noted that the plan should include short-term and long-term goals.

In June 2002, the CEC Council signed Council Resolution 02-05: Action Plan to Enhance Comparability Among Pollutant Release and Transfer Registers (PRTRs) in North America. In this resolution, the Council formally adopted the Action Plan and agreed to focus, as a matter of priority, on four key areas of difference among the three countries: the industry classification systems, the PRTR data on persistent bioaccumulative toxic substances, adoption of activity-based thresholds under the Mexican system and supporting Mexico in its effort to achieve a mandatory PRTR reporting system.

At its 2004 session in Puebla, Mexico, the Council issued a declaration that charts a new path forward, based on the comprehensive review of the first 10 years of CEC operations. The Puebla Declaration laid out three broad priorities for the years ahead, including information for decision-making, capacity building, and trade and the environment. The PRTR program supports these priorities, in particular with the *Taking Stock* reports and website database in support of information for decision-making and, through this Action Plan, the work on harmonization in support of capacity building in Mexico, which has been a primary goal of the CEC in recent years.

These and other Council Resolutions pertaining to the CEC's PRTR project can be found at www.cec.org.

Increased comparability can:

- provide an improved picture of pollutant releases and transfers in North America, thereby helping to protect human health and the environment;
- improve decision making for governments, industry and citizens;
- maximize scarce resources and increase efficiency among PRTR programs;
- strengthen scientific expertise and information exchange among the three countries;
- inform the public and provide access to environmental information;
- simplify requirements for industry reporting in several countries, potentially reducing reporting burden; and
- support international agreements with environmental information integrated into a single national register.

While focused on increased comparability, the collaborative work of the three governments under this Action Plan also allows for flexibility to ensure that each PRTR remains relevant to local and national circumstances. For example, the US TRI has a larger number of reportable chemicals under its system, which reflects, in part, the United States' larger industrial base. Some of the TRI chemicals are not widely used in Canada or the United States and thus it would not make sense to add them to the NPRI or RETC reporting requirements. The goal is not to achieve one North American PRTR format for all three countries, but rather to build a common, core set of information that is comparable among the three countries. Moreover, comparability is also an important issue within Mexico among the different states and the federal government.

Increasing the comparability of pollutant release systems among the three North American countries is a key step in addressing the environmental issues facing the US-Mexico border region. For over a decade, the region has been characterized by a rapid growth in population and economic activity. The rapid population growth in urban areas has resulted in unplanned development, greater demand for land and energy, increased waste generation, overburdened or unavailable waste treatment and disposal facilities, and more frequent chemical emergencies. Including information from the newly established mandatory Mexican PRTR into the *Taking Stock* annual report will help identify those sources of pollution in the border region that may present high risks to human health and the environment.

There are existing programs in place that would greatly benefit from comparable pollutant release information. The US Environmental Protection Agency (EPA) and Mexico's Secretariat of Environment and Natural Resources (Semarnat), with the active participation of the 10 border states, US tribal governments, and other federal agencies, developed the Border 2012 program to protect the environment and the public's health in the border region. One goal of this program is to improve environmental performance through compliance, enforcement, pollution prevention and environmental stewardship. The comparability of the pollutant release information is a critical step in achieving this goal and enhancing the ability of government, industry, and residents, to improve environmental conditions in the region.

This Action Plan is organized in two parts. The first part provides an overview of progress made since 1997 on increasing the comparability of the North American PRTRs, taking into account the set of basic features of an effective PRTR as outlined by Council in Council Resolution 00-07. The second part of the Action Plan contains the proposed set of actions for further enhancing the comparability of PRTR data in North America. Additional details on the various elements addressed in the Action Plan are provided in the annexes.

PRTRs GLOBALLY

PRTRs are gaining increasing interest and policy support worldwide. Many countries have established a PRTR. Following are some of the key developments at the international level:

- Chapter 19 of Agenda 21, adopted by some 150 heads of state and government during the 1992 United Nations Conference on Environment and Development (the “Earth Summit”), calls for the establishment of pollutant emission registers and promotes the principle of right-to-know;
- The OECD, through a 1996 Council Recommendation, called on member countries to take steps to establish, implement and make publicly available a PRTR system. The OECD Council Recommendation also promotes comparability among national PRTRs and sharing of PRTR data between neighboring countries.
- The Intergovernmental Forum on Chemical Safety (IFCS) recognizes PRTRs as a source of valuable information and as a mechanism to stimulate reductions in emissions. A 2000 special session on PRTRs recommended that countries initiate a process to design a national PRTR that involves all affected and interested parties in the design, that takes into account national circumstances and needs, and links reporting requirements of international agreements to the national PRTRs. www.who.int/ifcs
- The G-8 Environment Ministers 2001 meeting included support for the development of PRTRs as a means to increase access to information and recognizing that communities have a right-to-know about chemicals in the environment. Also, the Health and Environmental Ministers agreed to consider working towards developing PRTRs as a tool to manage exposure to chemical releases (see www.ec.gc.ca/international/regorgs/hema_e.htm). The 2002 World Summit on Sustainable Development meeting in Johannesburg, South Africa included support for the development of PRTRs as part of promoting the development of coherent and integrated information on chemicals.
- The first legally binding international agreement on PRTRs was finalized in 2003. This new PRTR Protocol was developed under the United Nations Economic Commission for Europe (UN/ECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, known as the Aarhus Convention. www.unece.org/env/pp

[2] Comparability of PRTRs in North America

Each year, CEC publishes the *Taking Stock* report, which provides an overview and analysis of the “matched” set of PRTR data that are publicly available from the national PRTR systems. To date, the matched North American data set includes information from the Canadian National Pollutant Release Inventory (NPRI) and the US Toxics Release Inventory (TRI). Information from Mexico’s *Registro de Emisiones y Transferencia de Contaminantes* (RETC) will be included as comparable data become available.

Since the countries began collaborating in the context of the CEC PRTR project, a number of steps have been taken by the United States and Canada that increase the comparability of their respective systems. These include changes in reporting requirements, such as:

- reporting off-site transfers by individual transfer site (NPRI, 1996 reporting year),
- reporting of pollution prevention activities (NPRI, 1997 reporting year),
- reporting by additional industry sectors (TRI, 1998 reporting year),
- mandatory reporting of transfers to recycling and energy recovery (NPRI, 1998 reporting year),
- expansion of chemical list (NPRI, 1999 and 2001 reporting years) and addition of persistent, bioaccumulative toxic (PBT) chemicals (NPRI and TRI, 2000 reporting year),
- lowering thresholds for some PBTs such as lead (TRI 2001 reporting year, NPRI 2002 reporting year), and mercury (NPRI and TRI, 2000 reporting year)
- changed definition for reporting vanadium and its compounds (TRI 2000 reporting year, NPRI 2001 reporting year),
- modification of pollution prevention reporting (NPRI categories expanded for 2002 reporting year, are now comparable with TRI),
- inclusion of petroleum terminal/bulk storage facilities (TRI 1998 reporting year and NPRI 2002 reporting year), and
- mandatory reporting to RETC (2004 reporting year).



The adoption of a mandatory requirement for RETC reporting and for making the data publicly accessible are considered the most important steps towards achieving comparability among the three national PRTRs. Also, the way in which the reporting thresholds are defined under the RETC, which fundamentally differs from the approach used by Canada and the United States, poses an important challenge to comparability among the three North American systems (see Section 3.2 below).

The reporting form and regulations published in January and March 2005 are used as the basis for comparison in this report. Some changes to the new form allow for a greater comparability with NPRI and TRI forms, such as:

- categories of types of transfers similar to those used in NPRI and TRI,
- reporting on accidental spills by release media and type of off-site transfers,
- general categories of pollution prevention that are similar to those used in NPRI and TRI, and
- reporting on reasons for year-to-year changes similar to that followed in NPRI.

Other actions in recent years have decreased the amount of comparable data from NPRI and TRI. Arsenic and cadmium and their compounds are no longer comparable because NPRI lowered reporting thresholds for the 2002 reporting year, but TRI has not.

In addition to actions taken by the individual PRTR programs, a number of steps have been taken through the CEC PRTR project to address specific areas where comparability is lacking or could be strengthened. The CEC has provided assistance in identifying standardized names for reporting of parent companies and standardized names and addresses for reporting of transfer site locations, as a means of fostering improved data quality and to facilitate cross-border tracking of pollutant data. As part of the process of creating the matched data set for the annual *Taking Stock* analyses, the CEC has also undertaken a number of targeted analyses, in consultation with the national PRTR program representatives, to determine whether and how certain data elements can be compared.



[3] Proposed Actions

There are numerous areas in which further work could be undertaken to enhance the comparability among the national PRTR systems in North America. The following issues have been identified by the three countries, through their ongoing discussions in the context of the CEC PRTR project, as the most important and/or potentially fruitful areas for action at this time. For each, a brief overview of the issue is provided, followed by a set of proposed actions.

Progress towards achieving the following actions is assessed on an annual basis. This Action Plan is also updated periodically, with revised and/or new goals and actions added on a rolling basis.

[3.1] Comparable Reporting

Currently, reporting by facilities is mandatory for both NPRI and TRI for on-site releases to air, water, land and underground injection and for off-site transfers to recycling/reuse, energy recovery, sewage, treatment and disposal. Reporting by facilities under Section 5 of the annual certificate of operation, the *Cédula de Operación Anual* (COA), which is the reporting mechanism most closely related to the PRTR systems of the United States and Canada, were previously voluntary. The legal framework for mandatory reporting in Mexico has been put into place, and mandatory reporting will begin in 2005 with the 2004 data.

In December 2001, the Mexican Congress passed enabling legislation to require the integration of data and documents contained in environmental authorizations, licenses, reports, permits and concessions received by Semarnat, the states, the Federal District and municipalities into an RETC. Work has begun on the regulations, with the aim of having facilities report in 2005 for the 2004 reporting year. With coordination provided by the CEC, the PRTR programs in both Canada and the United States have assisted their counterparts in Mexico with background information during the work on developing the regulations.



Proposed approach: The United States and Canada will continue to provide input on their experiences in developing a PRTR, as an aid to Mexico in developing its PRTR and to help build awareness among industry and the public on its usefulness.

[3.2] Reporting Thresholds

Reporting thresholds are applied to determine whether a facility has to report for a particular chemical. There are thresholds relating to the amount of the chemical and thresholds relating to the number of employees at the facility (see Annex 2). Currently, there are four different types of chemicals thresholds used by TRI, NPRI and/or RETC: (1) amount manufactured, processed or otherwise used (MPO), (2) amount released and/or transferred, (3) amount of on-site releases, and (4) amount of air releases (used for criteria air contaminants, see Section 3 below). The different methods of determining when a facility needs to report present a significant obstacle to comparability. The following discussion refers to thresholds for chemicals other than the criteria air contaminants.

REPORTING THRESHOLDS UNDER THE RETC

Chemicals on the RETC list are subject either to a “manufactured, processed or otherwise used” threshold or to an “on-site release” threshold, whereby the facility must report if the chemical is released on-site in quantities greater than a certain amount. However, most chemicals on the NPRI and TRI lists are subject to a “manufacturing, processing and otherwise used (MPO)” threshold. This threshold requires a facility to report on the chemical if it manufactures, processes or otherwise uses the chemical above a certain amount.



There is no easy crosswalk between the two different systems (MPO and on-site release). For facilities where the MPO amount is above the NPRI and TRI MPO thresholds, but where the on-site releases are below the RETC on-site release thresholds, such facilities, if located in Canada or the United States would report to NPRI or TRI. However, if located in Mexico, such facilities would not be required to report to the RETC. Similarly, facilities, if located in Mexico, that have on-site releases above the RETC on-site release threshold, but where the MPO amount is below the NPRI and TRI MPO thresholds, may report to the RETC. However, if located in Canada or Mexico, such facilities would not be required to report to the NPRI and TRI. This can lead to data that are not comparable.

Proposed approach: Exchange information among the three programs on the differences and advantages/disadvantages of the different approaches to defining thresholds. Encourage RETC to adopt the “manufacturing, processing and otherwise used (MPO)” thresholds only, as called for in Council Resolution 02-05.

REPORTING THRESHOLDS UNDER NPRI AND TRI

NPRI has established “alternative thresholds” for certain substances. Some of these are lowered MPO thresholds, but for other substances the threshold is based on a “release/transfer” threshold that is the sum of on-site releases and off-site transfers to disposal. TRI has also lowered MPO thresholds for certain substances, but has no “release/transfer” thresholds. (See Annex 3.) (For criteria air contaminants, the NPRI threshold is based on amount of air releases, see Section 3.3 below).

NPRI and TRI have established comparable lower MPO thresholds for lead and its compounds (including tetraethyl lead) and mercury and its compounds. The change took effect for mercury and its compounds for the 2000 reporting year. The change for lead and its compounds took effect for the 2001 reporting year under TRI and for the 2002 reporting year under NPRI. Therefore, lead and its compounds do not match for the 2001 reporting year but do for 2002 and later reporting years.

For three other substances, arsenic, cadmium and chromium and their compounds, the NPRI and TRI data will no longer match as of the 2002 reporting year. NPRI has lowered the MPO reporting threshold to 50 kg for arsenic and its compounds and for cadmium and its compounds. In addition, reporting on hexavalent chromium compounds has been separated from the category of chromium compounds at the 50 kg MPO threshold level.

The US EPA has initiated the development of a framework for assessing the hazards and risks of metals. Once the Metals Framework document is finalized, it will be applied to the TRI program, as appropriate.

Proposed approach: Encourage TRI to review reporting on arsenic, cadmium and chromium and their compounds, within the framework of the metals action plan and guidance documents, to see if reporting can be made comparable.

[3.3] List of Chemicals

COMPARABILITY AMONG THE THREE LISTS OF SUBSTANCES: TRI, NPRI AND RETC

The list of chemicals common to all three systems is not extensive. For the 2002 reporting year, there are approximately 200 chemicals on both the NPRI and TRI lists. Mexico has issued a list of 104 chemicals. Comparing the three lists gives 57 chemicals in common. An additional 26 RETC chemicals are on the TRI list, but not on the NPRI list, and two chemicals are on the NPRI and RETC lists, but not on the TRI list. (See Annex 3.) However, several of the substances have different definitions or may have different reporting thresholds and, therefore, could not be included in analyses comparing the three countries' data.

Proposed approach: Encourage all three countries to add chemicals that appear on the lists in the other countries, as appropriate, taking into account national circumstances. Each country will forward information on their chemical lists, criteria for inclusion and criteria for additions/deletions. The CEC has prepared analyses of NPRI/TRI matched chemicals to assist Mexico. In order to prioritize investigation of chemicals, the CEC is to prepare additional analyses of chemicals that are on one country's list but not another's, including the number of reports, amounts and type of industry sectors and chemical groups based on health effects.

COMPARABILITY OF DIOXINS/FURANS AND HEXACHLOROBENZENE

For the 2000 reporting year, NPRI and TRI added dioxins/furans to their lists. However, the reporting definition and reporting thresholds are different (see Annex 4). Currently, an NPRI facility is required to report on dioxins/furans if the facility was used for certain activities (such as some types of smelting, incineration, or steel or pulp and paper making). The facility reports in units of i-TEQ.* For TRI, a facility with 10 or more employees must report dioxins/furans based on an MPO threshold of 0.1 gram and reports in units of grams.** Both countries require reporting on the same 17 congeners.

Under NPRI, hexachlorobenzene reporting is based on the same activities as those listed for dioxins/furans. For TRI, a facility with 10 or more employees must report hexachlorobenzene based on an MPO threshold of 10 pounds (4.5 kg).

* For NPRI, dioxins/furans are reported in toxic equivalents (TEQ) using the International Toxic Equivalency Factors (i-TEF), adopted by international convention in 1989, as grams iTEQ. The i-TEQ is amount in grams of each congener present multiplied by its i-TEF. The sum of the individual TEQs for all 17 congeners is reported to NPRI. This is done for each type of release and transfer.

** For TRI, the distribution of the 17 congeners is reported in addition to the total amount of the 17 in grams. The distribution represents either the distribution of the total quantity of dioxins/furans released to all media from the facility or the facility's one best media-specific distribution. This distribution can be used along with a set of TEF values to calculate a TEQ.

NPRI has proposed changes for these substances which would be similar to the current TRI reporting requirements. That is, a report would be required from a facility with the equivalent of 10 full-time employees and an MPO threshold of 0.1 gram for the 17 dioxin/furan congeners and 5 kg for hexachlorobenzene. Further, the NPRI facility would report on dioxins/furans in units of grams with the software calculating values in both i-TEQ and WHO-TEQ.*** NPRI is currently reviewing its reporting requirements and changes can be expected for the 2006 reporting year.

Adding the reporting of WHO-TEQ (1998) values for dioxins/furans is under discussion for TRI for the 2006 or 2007 reporting year. Such reporting would be in addition to what is currently reported (grams and distribution of congeners). The changes under discussion for both NPRI and TRI would render reporting on dioxins/furans comparable and thus could be included in the CEC "matched" dataset.

RETC lists dioxins and furans as two categories without listing which specific congeners they cover. There is no reporting threshold for the dioxins and furans categories. Hexachlorobenzene is subject to a 5 kg MPO threshold or a 1,000 kg on-site release threshold.

Proposed approach: Encourage RETC to refine the dioxins and furans categories by specifying the 17 congeners, reporting by grams, and to consider a threshold of manufacture, process or otherwise used of 0.1 gram for dioxins/furans and of 5 kg for hexachlorobenzene. Encourage NPRI and TRI to review each others proposed changes in reporting to see if there are areas that can be made comparable. CEC to assist this effort through analysis of the TRI and NPRI data with respect to data found in one country but not the other.

COMPARABILITY OF DIISOCYANATES

TRI reports one amount for a group of 20 diisocyanates (except for the 2,4- and 2,6-toluene diisocyanates which are individually listed and reported). NPRI reports individual amounts for each diisocyanate on its list. The NPRI list includes only 6 diisocyanates so the reporting is not comparable to TRI. The RETC list does not include any of the TRI or NPRI diisocyanates. (See Annex 5.) In order to make any changes in reporting, RETC and NPRI would need to know the industrial uses of each diisocyanate and see if those uses were found in their country.

*** A different set of TEF values was adopted by the WHO (World Health Organization) in 1998 and can be used to calculate TEQ, called WHO-TEQ.

Proposed approach: Encourage NPRI and RETC to add the diisocyanates that appear on the TRI list, based on review and assessment of the importance of their specific uses in each country. The United States would provide information on how the individual diisocyanates on the TRI list were selected. The CEC will assist in this review by comparing diisocyanate data by amounts and industry sectors.

COMPARABILITY OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

TRI reports one amount for a group of polycyclic aromatic hydrocarbons (PAHs). NPRI reports individual amounts for each PAH on its list. The NPRI list does not include all the PAHs on the TRI list and the TRI list does not include all PAHs on the NPRI list. The RETC list does not include any of the TRI or NPRI PAHs. (See Annex 6.)

Proposed approach: The CEC would assist the countries in working together to understand the differences in PAH reporting, with the goal of making PAH reporting more comparable, taking into consideration national circumstances, through analysis of the TRI and NPRI data with respect to data found in one country but not the other. Encourage NPRI and TRI to add PAHs that are on the other's list. Encourage RETC to add the PAHs that are listed on NPRI and TRI. The CEC would coordinate comparison of PAH data by chemical, amounts (estimated and measured) and industry sectors.

CRITERIA AIR CONTAMINANTS

NPRI has added the reporting for seven criteria air contaminants for the 2002 reporting year. These substances have reporting thresholds based on air releases. Carbon monoxide, sulfur dioxide, nitrogen oxides and total particulate matter have a threshold of 20 tonnes of air releases. Volatile organic compounds have a threshold of 10 tonnes and particulate matter of less than 2.5 microns (PM 2.5) has a threshold of 0.30 tonnes and particulate matter of less than 10 microns (PM 10) has a threshold of 0.50 tonnes.

Reporting on five criteria air contaminants by Mexican facilities is mandatory under Section 2 of the *Cédula de Operación Anual* (COA): carbon monoxide, nitrogen oxide, total suspended particulates, sulfur oxide, and volatile organic compounds. Currently there are no plans to add criteria air contaminants to TRI; however, the TRI does contain information on some VOCs. Each country has a different list of substances that are considered to be “criteria” or “common” air contaminants. Four categories, carbon monoxide, nitrogen oxides, sulfur oxides and volatile organic compounds, are considered criteria air contaminants by all three countries. (See Annex 7.)

Proposed approach: The ongoing work in the context of the CEC Air Quality Project to develop an inventory of criteria air contaminants data is expected to provide an important basis for addressing this issue. With the addition of criteria air contaminants to NPRI, all of the available options, including the possible inclusion of criteria air contaminants in the matched PRTR data set, will be further explored.

GREENHOUSE GASES

Environment Canada required reporting of greenhouse gases under authority of the *Canadian Environmental Protection Act, 1999* for 2004, with reports due 1 June 2005. The information is being collected by Statistics Canada on behalf of Environment Canada and the province of Alberta. Environment Canada is continuing to work with provincial and territorial governments to develop and implement a GHG reporting system that is designed to:

- support the federal Large Final Emitters (LFE) system;
- increase the level of detail of the National GHG Inventory;
- meet provincial and territorial legislative and other reporting requirements for GHG emissions and related information; and
- provide Canadians with information on GHG emissions.

Reporting on carbon dioxide by Mexican facilities is mandatory under Section 2 of the *Cédula de Operación Anual* (COA). Greenhouse gases on the recently released RETC gases include carbon dioxide, sulfur hexafluoride, methane, nitrogen oxides and perfluorocarbons, with different reporting thresholds. TRI is not currently considering adding greenhouses gases. All three countries currently have separate greenhouse gas inventories, which are, however, not facility-specific.

Proposed approach: The three countries could continue to exchange ideas about the possible inclusion of greenhouse gases.

[3.4] Identification of Industries and Industry Sectors

INDUSTRIAL CLASSIFICATION

At present, Canada, Mexico, and the United States have three different Standard Industrial Classification (SIC) systems. Currently, the Canadian NPRI requires facilities to report the US and Canadian SIC codes and the North American Industrial Classification System (NAICS) codes, so data from these two PRTRs can be compared. The COA form has a section where the industrial activities of the facilities are described, but no code is given. The COA form has a section to describe the facility's industrial activities, although it does not ask for the industry sector. Mexico could report such identification as NAICS, since it issued a provision establishing specific subsectors that could be compared with NAICS.

If each country adopts the North American Industrial Classification System (NAICS), the data can be compared by industry sector. Environment Canada added the NAICS code for the 1999 NPRI reporting year and has said it will continue to require facilities to report the US SIC Code until the TRI switches to NAICS reporting.

EPA is working on implementing NAICS in TRI and aims to have a rule effective for the reporting year 2006.

Proposed approach: Encourage TRI and RETC to implement the use of the NAICS system. Continue to include the US SIC code on NPRI reports until TRI adopts the NAICS system.

INDUSTRY SECTOR REPORTING

NPRI requires any facility using a substance above the thresholds to report. TRI reporting is limited to manufacturing facilities and seven additional industry sectors. Mexican facilities under federal jurisdiction report to the COA. The eleven sectors under federal air pollution jurisdiction (chemicals, oil and petrochemicals; paint and ink; automotive; cellulose and paper; metals; glass; electrical power; asbestos; cement and lime; and hazardous waste treatment industries) should report based on their potential air emissions of criteria air pollutants and the 104 substances above the established reporting thresholds. All Mexican industry sectors also must report the generation of hazardous waste where PRTR substances are transferred above the reporting thresholds. These do not include all sectors for which comparable US and Canadian data are available, but do include those with the largest releases in NPRI and TRI, such as chemicals, paper, plastics, primary metals, electric utilities and hazardous waste treatment facilities.

All industrial facilities are required to report water discharges of PRTR substances into federal receiving water bodies, regardless of the sector. Under the new legislation, additional sectors may be reporting through state and municipal systems.

Proposed approach: Continue to encourage Mexico to coordinate efforts with the state governments to ensure sharing of comparable data. Encourage Mexico and the United States to require other industry sectors to report, basing the reporting requirements on comparable definitions, as appropriate and taking into account national circumstances.

[3.5] Exemptions

INDUSTRIAL CLASSIFICATION

Differences in reporting requirements may also render data from a certain sector non-comparable. Metal mining cannot be compared between NPRI and TRI because TRI may include reporting on waste rock, and NPRI does not require this information to be reported at the present time. Although “naturally occurring” toxic chemicals in waste rock are not exempt from TRI reporting obligations, a court decision determined that non-PBT chemicals present in waste rock below certain concentrations are eligible for the *de minimis* exemption. Thus, while concentrations of 1% (or 0.1% for OSHA carcinogens) are not reportable, concentrations of certain toxic chemicals in waste rock may be above *de minimis* levels and, therefore, are reportable for certain mining facilities. The CEC investigated the differences and found they could not be reconciled for comparative analysis. Both NPRI and TRI are reviewing reporting by the mining sector.

Under NPRI, the exemption for mining is for activities related to the actual removal of ore, rock or overburden, up to and including primary crushing. Listed substances in tailings are not reportable unless they leave the tailings impoundments or other forms of on-site containment. NPRI is currently reviewing the mining exemption. Changes are expected for the 2006 reporting year.

Under TRI, the contents of overburden and waste rock are not considered for the purposes of reporting threshold calculations. However, if the threshold is otherwise exceeded by the facility, then releases or transfers of TRI substances in waste rock must be reported unless an exemption applies. Releases and transfers of chemicals found in the unconsolidated material in overburden are not required to be reported. TRI is working on a rulemaking in light of court decisions to several lawsuits and, in particular, on how reporting requirements may apply to extraction and beneficiation.

In April 2003, the US District Court for the District of Columbia upheld EPA's interpretation that mine tailings are not eligible for the *de minimis* exemption to TRI reporting. However, the Court set aside EPA's interpretation of the exemption as it applied to waste rock. As a result, EPA has stated that non-PBT listed chemicals in *de minimis* concentrations in a mine's waste rock may now be eligible for exemption from TRI reporting requirements.

Mining is included in the primary metals sector, under the recent provisions of Article 17 Bis of the LGEEPA Air Pollution Regulation. Reporting does not include exploration or chemicals in waste rock.

Proposed approach: Encourage the three countries to take into account the plans for changes in the other countries to ensure that any changes made will serve to increase comparability. The three countries have agreed to exchange information on proposed changes.

MOTOR VEHICLE MAINTENANCE AND REPAIR AND OTHER EXEMPTIONS FROM REPORTING

Several types of facility activities are exempt from NPRI and TRI reporting. These include motor vehicle maintenance and repair, janitorial and personal use. Facilities are not required to report on these activities under the federal RETC, but states do collect information on these activities.

NPRI exemptions include materials used in routine janitorial or facility grounds maintenance, personal use by employees or other persons, used for the purpose of maintaining motor vehicles operated by the facility, intake water or intake air. Also, activities such as research or testing, retail sale of the substance and wholesale or retail sale of articles or products, if the substance is not released to the environment during normal use at the facility, are exempt. Mining and management of renewable natural resources are exempt except processing or otherwise using mined materials or renewable natural resources. (See above for changes to mining exemptions being discussed.) NPRI has made changes to its exemptions for the 2002 reporting year. Exemptions include maintenance and repair of transportation vehicles, except painting and stripping of vehicles or their components, or the rebuilding or remanufacturing of vehicle components; distribution, storage, or retail sale of fuels, except as part of the terminal operations. These exemptions do not apply for criteria air contaminants and the selected volatile organic compounds added with the 2004 reporting year. Exemptions applying to the reporting of criteria air contaminants include substances only released to air from stationary, external-combustion equipment, the cumulative nameplate capacity of that equipment is less than 10 million British Thermal Units per hour and the only type of fuel combusted in that equipment is commercial grade natural gas, liquefied petroleum gas, and/or Number 1 or 2 fuel oil.

TRI is not planning any changes to its exemptions, which include an “otherwise use” activity exemptions for: routine janitorial or facility grounds maintenance; personal use by employees or other persons at the facility; maintaining motor vehicles operated by the facility; structural components of the facility; and chemicals contained in intake water (used for processing or non-contact cooling) or intake air (used either as compressed air or for combustion). TRI also provides an exemption from reporting on toxic chemicals contained in “articles.” Basically, an *article* is defined as an item that is formed to a specific shape or design, has end use functions dependent upon its shape or design, and does not release a toxic chemical under normal conditions of use. In addition, pursuant to a *de minimis* exemption, TRI allows facilities to disregard certain minimal concentrations of toxic chemicals in mixtures or trade name products. Under TRI, facilities may also consider exempting chemicals used in a laboratory at the facility under the direct supervision of a technically qualified individual. Finally, there are two TRI exemptions that apply specifically to the mining sector, the coal extraction activities exemption and the metal mining overburden exemption. (See above for changes to metal mining exemption being discussed.) All of these exemptions can be found in the regulations at Volume 40 of the Code of Federal Regulations, section 372.38.

Proposed approach: Encourage NPRI and TRI to take into account the plans for changes in the other country to ensure that any changes made will serve to increase comparability. TRI and NPRI have agreed to exchange information on proposed changes.

[3.6] Reporting of Off-site Transfers

OFF-SITE TRANSFER LOCATION IDENTIFICATION

Each PRTR contains non-standardized information on to whom and where off-site transfers are sent. Such information, if standardized, would greatly enhance the analysis of the status and trends of pollutant transfers, based upon where they go.

Both TRI and NPRI require reporting of the name and address of the transfer location. The COA form for the RETC has a permit number and the city and country but no street address, although this information may be determined as the information becomes available in the regulation of the transfer activities, such as reuse, recycling, energy recovery, treatment and disposal. *Taking Stock* uses the full address of transfer sites in its analysis in two ways. To compare releases reported by facilities receiving the transfers (the transfers are omitted to avoid double counting if they are reported as released by the receiving facility) and to compare cross-border transfers.

The CEC has provided a list of standardized transfer site names and addresses that are used as cross-border transfer sites, based on the 1998 reporting year, which the national programs can then distribute in their reporting guidance. NPRI has developed a 'pick list' of off-site destinations which is included in the reporting software.

RETC is expected to address this issue through its reporting software, as the catalog of transfer-receiving establishments is built.

Proposed approach: Each country should be responsible for standardizing the name and location information for all sites within its borders, and for making this available to the other countries as well as including it in its own reporting guidance. Encourage RETC to provide the complete address of the transfer site. The CEC will provide the standardized names and numbers for transfer sites involved in cross-border transfers, as found in the matched dataset.

[3.7] Other Data Elements

PARENT COMPANY/FACILITY IDENTIFICATION AND LINKAGE

The national PRTR representatives have agreed to cooperate with CEC and each other to standardize parent company identification across North America. Standardization is important if all facilities belonging to a parent company are to be identified in the three countries. Currently, reporting on parent companies differs in the three countries.

Parent company name and the Dun and Bradstreet number for the parent company are reported to TRI, NPRI and RETC. In NPRI, the parent company's address is also reported. Both TRI and NPRI instruct the facility to report the parent company at the national, rather than international, level. Parent company name, state or province and country are reported to RETC. In TRI, NPRI and RETC, the Dun and Bradstreet number is reported for the facility. NPRI also requires reporting of a facility's Business Number, which links to Canada Customs and Revenue Agency.

Proposed approach: Continue trilateral cooperation to standardize parent company identification across North America. As an initial step, encourage the national PRTR programs to distribute a list of standardized parent company names and numbers in their reporting guidance. Encourage TRI to provide parent company address. The CEC will provide support to standardizing parent company information.

REPORTING ON REASONS FOR YEAR-TO-YEAR CHANGES

The NPRI form has a provision for recording the reasons that releases or transfers of each chemical have changed from the previous year. There are check-off boxes of possible reasons as well as comment fields. These are used extensively by NPRI facilities and provide useful information to users of the data for interpreting such changes. RETC has a similar section on its COA form where reasons for changed codes are given and comments can be written. The reasons for changed codes include changes in production, pollution prevention, estimation methods, and on-site treatment. TRI, under the Form modifications rule effective September 2005, provides for an optional electronic text box where facilities can submit additional information about their source reduction, recycling and pollution prevention techniques, but does not have a section for recording whether other types of changes affected the year-to-year numbers.

Proposed approach: Encourage TRI to add reasons for changed codes to the form.

[3.8] Public Disclosure and Confidentiality of Data

Both NPRI and TRI data are available to the public in a variety of forms, including on the web and in various hard-copy reports. Information on Mexico's RETC program and some data from the COA are summarized in hard-copy reports. No facility-specific information is currently made publicly available. The enabling legislation passed by the Mexican Congress in December 2001 states that the reported information will be public and access to the information will be given by the Ministry and actively disseminated.

DATA CONFIDENTIALITY

The countries have different approaches for safeguarding confidential business information and for informing the public of what has been withheld from disclosure. When the toxic chemical is claimed as a trade secret under TRI, the substance is given a generic chemical name that is structurally descriptive of the chemical but the facility information and amounts of releases and transfers are included in the public database. For confidentiality claims under NPRI, no data or facility information appear in the public database. The total amount of releases and transfers held confidential is reported in the NPRI summary report, but neither the facilities making the claim nor these amounts are identified in the public database. The Mexican RETC is confidential as provided in the LGEEPA and the Industrial Property Law (*Ley de Propiedad Industrial*). The CEC prepared a paper describing the ways in which confidentiality claims are handled in NPRI and TRI and experiences to date to assist Mexico in designing its system for handing information claimed as confidential under the RETC.

Proposed approach: Encourage Mexico to make RETC data publicly available. Encourage Canada to make the facility name and reported amounts publicly available for reports that have been claimed as confidential.

PUBLIC ACCESS/DATA COMMUNICATION

NPRI and TRI provide their data to the public in various formats, including as searchable databases on the Internet. These formats are evolving as Internet access becomes more widely available to the public. As the RETC data are published, the various avenues of communication will be developed. It may be useful to share among the three countries the different approaches to making the data available on the Internet that have been used, what worked well, what was relatively less costly, and what difficulties were encountered.

Proposed approach: Encourage all parties to discuss approaches to electronic and other means of access to, and dissemination of, PRTR data.

[3.9] **Other Areas Not Currently Under Active Consideration**

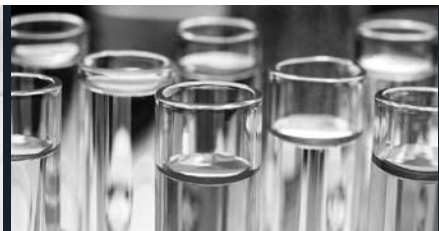
Other areas that are not comparable, but that are not currently under active consideration, include the following:

- reporting definition for ammonia
- reporting thresholds based on number of employees
- reporting of on-site waste management data
- reporting on amounts of chemical use
- projections of amounts of releases and transfers
- reporting of production/activity index
- reporting of permit numbers
- additional speciation of volatile organic compounds
- addition of upstream oil and gas wells
- categorization of releases and transfers

Additional details on these areas, which represent opportunities for possible future work, are included in Annex 1.



[Annexes]



Annex 1. Status of Comparability Among the National PRTR Programs in North America

Major Data Elements	US Toxics Release Inventory (TRI)	Canadian National Pollutant Release Inventory (NPRI)
LEGAL BASIS		
Mandatory/ Voluntary Reporting	Mandatory.	Mandatory.
REPORTING THRESHOLDS		
Chemical Thresholds	Manufacture/process more than 25,000 pounds (11,338 kg) or otherwise use more than 10,000 pounds (4,535 kg); For certain chemicals, different levels (100 pounds, 10 pounds or 0.1 gram) have been set.	Manufacture, process or otherwise use 10 tonnes (10,000 kg) or more. For certain chemicals, thresholds are based on amount of the total of on-site releases and transfers to disposal.
LIST OF CHEMICALS		
List for 2002 reporting year**	582 individually listed chemicals and 30 categories	257 chemicals (includes 17 categories).
Additions/Changes (2000/2001/2002 reporting year)	7 chemicals and 2 categories added. 16 chemicals and 4 categories with "manufacture, process, use" thresholds lowered.	23 chemicals added. Some are based on "release/transfer" threshold. 6 chemicals with lowered "manufacture, process, use" threshold.
Diisocyanates	Report one amount for group of diisocyanates.	Report amounts for each diisocyanate.
PAHs	Report one amount for group of PAHs.	Report amounts for each PAH.
Criteria air contaminants	Not on TRI	Added to NPRI for 2002.
Greenhouse Gases	Not on TRI list.	Not on NPRI list.
INDUSTRY SECTORS		
Industry classification code	Facility reports all US SIC codes applicable to its operations. Expect to switch to NAICS by 2006 reporting year.	One primary SIC code per facility. Facility reports Canadian SIC code, NAICS and US SIC code.
Industry sectors reporting	Manufacturing and federal facilities, electric utilities, mining, hazardous waste management, solvent recovery, chemical wholesalers, petroleum bulk terminals	Any facility manufacturing or using a listed chemical, except research, repair and retail sales. Agriculture, mining, well drilling also exempt, except if processing or otherwise using the substance.

Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC Section 5 of COA)	Status of Comparability
Mandatory beginning with 2004 reporting year.*	Only mandatory data are comparable.
Two alternative thresholds: 1) based on manufacture, process or otherwise use (varies by chemical, 5 kg to 5,000 kg) or 2) based on amount of on-site releases, varies by chemical	NPRI/TRI comparable. RETC comparable if reporting based on manufacture, process or otherwise use but not if based on on-site releases. See Annex 2.
104 chemicals.	57 substances on TRI/NPRI/RETC lists. 203 substances/reporting requirements match NPRI/TRI. See Annex 3.
None added.	Generally not comparable because thresholds do not match. See Annex 4.
No diisocyanates on list.	NPRI list does not match TRI group so not comparable. See Annex 5.
No PAHs on list.	NPRI list does not match TRI group so not comparable. See Annex 6.
Mandatory reporting in Section 2 of COA.	Not comparable. See Annex 7.
Some on RETC.	Not comparable.
Description of industry activity. CMAP and NAICS code per facility to be supplied by Semarnat.	Will be comparable if all three report NAICS code. Currently, NPRI-TRI data comparability is enabled by NPRI requiring facilities to also report US SIC code. NPRI and TRI switch to NAICS for 2006 reporting year.
Facilities under federal jurisdiction including: petroleum products, chemicals, paints, primary and fabricated metals, automobiles, paper, cement, asbestos, glass, electric utilities, hazardous waste management. Microindustries do not report.	Metal mining is not matched NPRI/TRI. RETC does not include mining, food products, textiles, apparel, leather, lumber and wood, instruments. RETC may not include all industrial machinery and electronic/electrical equipment (only those with thermal or foundry processes).

Annex 1. Status of Comparability Among the National PRTR Programs in North America (continued)

Major Data Elements	US Toxics Release Inventory (TRI)	Canadian National Pollutant Release Inventory (NPRI)
EXEMPTIONS		
Mining	There is a coal mining extraction activities exemption, which exempts toxic chemicals used in extraction activities (not including beneficiation activities). There is also a metal mining overburden exemption which exempts toxic chemicals in overburden. Pursuant to recent court decisions, the toxic chemicals in tailings are not eligible for the <i>de minimis</i> exemption but, the non-PBT chemicals reported to TRI that are in waste rock are eligible for <i>de minimis</i> exemption consideration.	Tailings are covered.
Motor Vehicle Maintenance and Repair and other exemptions	Motor vehicle maintenance, janitorial or personal use, chemicals in water or air intake.	Janitorial or facility grounds maintenance, maintenance and repair of transportation vehicles except painting and stripping of vehicles or rebuilding of vehicle components, distribution storage or retail sale of fuels except as part of terminal operations.
OFF-SITE TRANSFERS		
Off-site Amount Identification	Report by transfer types: recycling, energy recovery, treatment, sewage, disposal	Report by transfer types: recycling, energy recovery, treatment, sewage, disposal
Off-site transfer location identification	Name, address and permit number. Sewage treatment plants identified but not by amount of transfer.	Name and address and identification number.
OTHER DATA ELEMENTS		
Parent company name/ address	Parent company name and D&B number; no address	Parent company name and D&B number and address
Reasons for change from year to year.	Not reported.	Reported.
PUBLIC DISCLOSURE AND CONFIDENTIALITY OF DATA		
Confidentiality	For confidentiality claims, only the chemical name is kept confidential.	For confidentiality claims, the entire report and name of facility is kept confidential.
Public Access/Data Communication	Data on internet and in summary reports and other electronic materials.	Data on internet and in summary reports and other electronic materials.

Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC Section 5 of COA)	Status of Comparability
Mining not required to report.	Not comparable. Both TRI and NPRI are reviewing reporting by mining industries.
None	Need to review comparability.
Report by transfer types: reuse, recycling, energy recovery, treatment, sewage or disposal.	Comparable.
Permit number, name, city and state.	Cannot identify address where transfers are sent in RETC (necessary for cross boundary transfers analyses and to avoid double-counting of transfers as releases) unless supplied by Semarnat based on permit number.
Parent company name	Not comparable. Must standardize name based on manual inspection to compare.
Reported.	TRI not comparable.
For confidentiality claims, the entire report and name of facility is kept confidential.	Comparable.
Data not currently available to public. Plans for communication of mandatory data under development.	Not comparable.

Annex 1. Status of Comparability Among the National PRTR Programs in North America (continued)

Major Data Elements	US Toxics Release Inventory (TRI)	Canadian National Pollutant Release Inventory (NPRI)
OTHER AREAS NOT CURRENTLY UNDER ACTIVE CONSIDERATION		
Definition for reporting Ammonia	Anhydrous ammonia and 10% of aqueous ammonia.	Total ammonia.
Number of employees	Reporting threshold is 10 or more employee equivalents (20,000 hours). Actual number not reported.	Reporting threshold is 10 or more employees equivalents (20,000 hours). Some chemicals no employee threshold. Actual number reported.
On-site waste management data	Reported.	Not reported.
Amount of use of chemical	Not reported.	Not reported.
Future year projections	Prior, current and following two years for total releases, on- and off-site treatment, energy recovery and recycling.	Following three years mandatory, fourth and fifth year optional, for releases and for transfers to disposal.
Production/activity index	Index for current year reported.	Index reporting not mandatory.
Pollution Prevention/Source Reduction	List of codes used to report on pollution prevention activities.	List of codes used to report on pollution prevention activities.
Permit numbers	Federal NPDES (surface water discharges) and RCRA (hazardous waste permit) numbers mandatory.	There are no federal permit numbers. Provincial or municipal permit numbers optional.
Additional speciation of volatile organic compounds (VOCs)	VOCs as category not listed.	Additional speciation of VOCs (as criteria air contaminant) for reporting year 2003.
Addition of upstream oil and gas wells	Not required to report.	Required to report (drilling and exploration exempt).

* For the purposes of assessing comparability for specific data elements, the Mexican RETC is referred to as if it were mandatory. A common basis of mandatory reporting is a necessary precondition to all other aspects of comparability. The data elements in the COA form promulgated in March 2005 are used for comparison.

** Not including criteria air contaminants. See Annex 7 for criteria air contaminants.

Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC Section 5 of COA)	Status of Comparability
Not reported.	Not comparable.
No threshold based on number of employees. Actual number reported.	NPRI/RETC reports number of employees so can pick comparable facilities.
Reported.	Not comparable.
Reported.	Not comparable.
Not reported.	RETC not comparable.
Not reported.	Not comparable TRI and NPRI since not mandatory. Can be used for analysis of source reduction activity.
List of codes used to report on pollution prevention activities.	Codes differ but are comparable.
Federal permit and license numbers mandatory.	Not comparable. Useful for matching transfers to transfer sites.
No additional speciation of VOCs (in Section 2 as criteria air contaminant).	Not comparable.
Not required to report.	Not comparable.

Annex 2. Types of Reporting Thresholds

Type of Threshold	TRI	NPRI	RETC	Comments
CHEMICAL THRESHOLDS				
Manufacture, Process, Otherwise Use	All chemicals	Most chemicals	Alternate threshold	Requires only readily available data for a facility to determine eligibility and for enforcement. If amount of threshold differs, not comparable. Not comparable to other thresholds.
Releases and Transfers (to disposal)	None	Applies to polycyclic aromatic compounds	None	Used by NPRI for chemicals that are primarily by-products of the production process. Not comparable to other thresholds.
On-site Releases	None	None	Alternate threshold	Not comparable to other thresholds.
Air Releases	None	Criteria Air Contaminants	None	Not comparable to other thresholds.
No Threshold	None	Hexachlorobenzene and dioxins/furans	Dioxins/furans, PCBs and sulfur hexachloride.	Not comparable to other thresholds.
EMPLOYEE THRESHOLD				
Number of Employees	10 or more	10 or more (for most chemicals)	No employee threshold limit	Can compare by excluding NPRI and RETC facilities with fewer than 10 employees

Annex 3. List of TRI, NPRI, and RETC Chemicals for 2002 Reporting Year

Includes chemicals on the separate countries lists. Individual substances may not be in "matched" data set due to differences in reporting requirements, see Annex 4. TRI has over 300 additional chemicals. Only those also on the NPRI or RETC list are included here.

CAS Number	Chemical Name	TRI	NPRI	RETC	CAS Number	Chemical Name	TRI	NPRI	RETC
50-00-0	Formaldehyde	X	X	X	56-38-2	Parathion	X		
50-29-3	DDT			X	56-55-3	Benzo(a)anthracene	**	X	
50-32-8	Benzo(a)pyrene	**	X		57-14-7	1,1-Dimethylhydrazine	X		
51-03-6	Piperonyl butoxide	X			57-33-0	Pentobarbital sodium	X		
51-21-8	Fluorouracil	X			57-41-0	Phenytoin	X		
51-28-5	2,4-Dinitrophenol	X			57-57-8	beta-Propiolactone	X		
51-75-2	Nitrogen mustard	X			57-74-9	Chlordane	X		X
51-79-6	Urethane	X			58-89-9	Lindane	X		X
52-68-6	Trichlorfon	X			58-90-2	2,3,4,6-Tetrachlorophenol			X
52-85-7	Famphur	X			59-89-2	N-Nitrosomorpholine	X		
53-70-3	Dibenzo(a,h)anthracene	**	X		60-09-3	4-Aminoazobenzene	X		
53-96-3	2-Acetylaminofluorene	X			60-11-7	4-Dimethylaminoazobenzene	X		
55-18-5	N-Nitrosodiethylamine	X			60-34-4	Methylhydrazine	X		
55-21-0	Benzamide	X			60-35-5	Acetamide	X		
55-38-9	Fenthion	X			60-51-5	Dimethoate	X		
55-63-0	Nitroglycerin	X	X		60-57-1	Dieldrin			X
56-23-5	Carbon tetrachloride	X	X	X	61-82-5	Amitrole	X		
56-35-9	Bis(tributyltin) oxide	X			62-53-3	Aniline	X	X	X

CAS Number	Chemical Name	TRI	NPRI	RETC
62-55-5	Thioacetamide	X		
62-56-6	Thiourea	X	X	
62-73-7	Dichlorvos	X		
62-74-8	Sodium fluoroacetate	X		
62-75-9	N-Nitrosodimethylamine	X		X
63-25-2	Carbaryl	X		
64-18-6	Formic acid	X	X	
64-67-5	Diethyl sulfate	X	X	
64-75-5	Tetracycline hydrochloride	X	X	
67-56-1	Methanol	X	X	
67-63-0	Isopropyl alcohol	X	X	
67-66-3	Chloroform	X	X	X
67-72-1	Hexachloroethane	X	X	X
68-12-2	N,N-Dimethylformamide	X	X	
68-76-8	Triaziquone	X		
70-30-4	Hexachlorophene	X	X	
71-36-3	n-Butyl alcohol	X	X	
71-43-2	Benzene	X	X	X
71-55-6	1,1,1-Trichloroethane	X		X
72-02-8	Endrin			X
72-43-5	Methoxychlor	X		X
72-57-1	Trypan blue	X		
74-82-8	Methane			X
74-83-9	Bromomethane	X	X	X
74-85-1	Ethylene	X	X	
74-87-3	Chloromethane	X	X	X
74-88-4	Methyl iodide	X	X	
74-90-8	Hydrogen cyanide	X	X	
74-95-3	Methylene bromide	X		
75-00-3	Chloroethane	X	X	
75-01-4	Vinyl chloride	X	X	X
75-05-8	Acetonitrile	X	X	
75-07-0	Acetaldehyde	X	X	X
75-09-2	Dichloromethane	X	X	X
75-15-0	Carbon disulfide	X	X	
75-21-8	Ethylene oxide	X	X	
75-25-2	Bromoform	X		X
75-27-4	Dichlorobromomethane	X		
75-34-3	1,1-Dichloroethane	X		
75-35-4	Vinylidene chloride	X	X	

CAS Number	Chemical Name	TRI	NPRI	RETC
75-43-4	Dichlorofluoromethane (HCFC-21)	X		
75-44-5	Phosgene	X	X	
75-45-6	Chlorodifluoromethane (HCFC-22)	X	X	X
75-55-8	Propylenimine	X		
75-56-9	Propylene oxide	X	X	
75-63-8	Bromotrifluoromethane (Halon 1301)	X	X	X
75-65-0	tert-Butyl alcohol	X	X	
75-68-3	1-Chloro-1,1-difluoroethane (HCFC-142b)	X	X	X
75-69-4	Trichlorofluoromethane (CFC-11)	X	X	X
75-71-8	Dichlorodifluoromethane (CFC-12)	X	X	X
75-72-9	Chlorotrifluoromethane (CFC-13)	X	X	X
75-86-5	2-Methylacetonitrile	X		
75-88-7	2-Chloro-1,1,1-trifluoroethane (HCFC-133a)	X		
76-01-7	Pentachloroethane	X	X	
76-02-8	Trichloroacetyl chloride	X		
76-06-2	Chloropicrin	X		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	X		X
76-14-2	Dichlorotetrafluoroethane (CFC-114)	X	X	X
76-15-3	Monochloropentafluoroethane (CFC-115)	X	X	X
76-44-8	Heptachlor	X		X
76-87-9	Triphenyltin hydroxide	X		
77-47-4	Hexachlorocyclopentadiene	X	X	X
77-73-6	Dicyclopentadiene	X	X	
77-78-1	Dimethyl sulfate	X	X	
78-00-2	Tetraethyl lead	*	X	*
78-48-8	S,S,S-Tributyltrithiophosphate	X		
78-79-5	Isoprene		X	
78-83-1	i-Butyl alcohol		X	
78-84-2	Isobutyraldehyde	X	X	
78-87-5	1,2-Dichloropropane	X	X	
78-88-6	2,3-Dichloropropene	X		
78-92-2	sec-Butyl alcohol	X	X	
78-93-3	Methyl ethyl ketone	X	X	

Annex 3. List of TRI, NPRI, and RETC Chemicals for 2002 Reporting Year (continued)

CAS Number	Chemical Name	TRI	NPRI	RETC
79-00-5	1,1,2-Trichloroethane	X	X	X
79-01-6	Trichloroethylene	X	X	X
79-06-1	Acrylamide	X	X	X
79-10-7	Acrylic acid	X	X	
79-11-8	Chloroacetic acid	X	X	
79-19-6	Thiosemicarbazide	X		
79-21-0	Peracetic acid	X	X	
79-22-1	Methyl chlorocarbonate	X		
79-34-5	1,1,2,2-Tetrachloroethane	X	X	X
79-44-7	Dimethylcarbamyl chloride	X		
79-46-9	2-Nitropropane	X	X	X
79-94-7	Tetrabromobisphenol A	X		
80-05-7	4,4'-Isopropylidenediphenol	X	X	
80-15-9	Cumene hydroperoxide	X	X	
80-62-6	Methyl methacrylate	X	X	
81-07-2	Saccharin	X		
81-88-9	C.I. Food Red 15	X	X	
82-28-0	1-Amino-2-methylantraquinone	X		
82-68-8	Quintozene	X		
84-66-2	Diethyl phthalate		X	
84-74-2	Dibutyl phthalate	X	X	X
85-01-8	Phenanthrene	X	X	
85-44-9	Phthalic anhydride	X	X	
85-68-7	Butyl benzyl phthalate		X	
86-30-6	N-Nitrosodiphenylamine	X	X	
87-62-7	2,6-Xylidine	X		
87-68-3	1,1,2,3,4,4-Hexachloro-1,3-butadiene	X		X
87-86-5	Pentachlorophenol	X		X
88-06-2	2,4,6-Trichlorophenol	X		X
88-75-5	2-Nitrophenol	X		
88-85-7	Dinitrobutyl phenol	X		
88-89-1	Picric acid	X		
90-04-0	o-Anisidine	X		
90-43-7	2-Phenylphenol	X	X	
90-94-8	Michler's ketone	X	X	
91-08-7	Toluene-2,6-diisocyanate	X	X	
91-20-3	Naphthalene	X	X	
91-22-5	Quinoline	X	X	
91-59-8	beta-Naphthylamine	X		X
91-94-1	3,3'-Dichlorobenzidine	X		
92-52-4	Biphenyl	X	X	X
92-67-1	4-Aminobiphenyl	X		X
92-87-5	Benzidine	X		X
92-93-3	4-Nitrobiphenyl	X		X
93-65-2	Mecoprop	X		
94-11-1	2,4-D Isopropyl ester	X		
94-36-0	Benzoyl peroxide	X	X	
94-58-6	Dihydroisofurole	X		
94-59-7	Safrole	X	X	
94-74-6	Methoxone	X		
94-75-7	2,4-D (Acetic acid)	X		X
94-80-4	2,4-D Butyl ester	X		
94-82-6	2,4-DB	X		
95-47-6	o-Xylene	X	X	
95-48-7	o-Cresol	X	X	
95-50-1	1,2-Dichlorobenzene	X	X	X
95-53-4	o-Toluidine	X		
95-54-5	1,2-Phenylenediamine	X		
95-63-6	1,2,4-Trimethylbenzene	X	X	
95-69-2	p-Chloro-o-toluidine	X		
95-80-7	2,4-Diaminotoluene	X	X	
95-95-4	2,4,5-Trichlorophenol	X		X
96-09-3	Styrene oxide	X	X	
96-12-8	1,2-Dibromo-3-chloropropane	X		
96-18-4	1,2,3-Trichloropropane	X		
96-33-3	Methyl acrylate	X	X	
96-45-7	Ethylene thiourea	X	X	
97-23-4	Dichlorophene	X		
97-56-3	C.I. Solvent Yellow 3	X		
98-07-7	Benzoic trichloride	X		
98-82-8	Cumene	X	X	
98-86-2	Acetophenone	X	X	
98-87-3	Benzal chloride	X		
98-88-4	Benzoyl chloride	X	X	
98-95-3	Nitrobenzene	X	X	
99-30-9	Dichloran	X		
99-55-8	5-Nitro-o-toluidine	X		
99-59-2	5-Nitro-o-anisidine	X		
99-65-0	m-Dinitrobenzene	X		

CAS Number	Chemical Name	TRI	NPRI	RETC
100-01-6	p-Nitroaniline	X	X	
100-02-7	4-Nitrophenol	X	X	
100-25-4	p-Dinitrobenzene	X		
100-41-4	Ethylbenzene	X	X	
100-42-5	Styrene	X	X	X
100-44-7	Benzyl chloride	X	X	
100-75-4	N-Nitrosopiperidine	X		
101-05-3	Anilazine	X		
101-14-4	4,4'-Methylenebis(2-chloroaniline)	X	X	
101-61-1	4,4'-Methylenebis(N,N-dimethyl)benzeneamine	X		
101-68-8	Methylenebis(phenylisocyanate)	**	X	
101-77-9	4,4'-Methylenedianiline	X	X	
101-80-4	4,4'-Diaminodiphenyl ether	X		
101-90-6	Diglycidyl resorcinol ether	X		
103-23-1	Bis(2-ethylhexyl) adipate		X	
104-12-1	p-Chlorophenyl isocyanate	X		
104-35-8	2-(p-Nonylphenoxy) ethanol		X	
104-40-5	Nonylphenol		X	
104-94-9	p-Anisidine	X		
105-67-9	2,4-Dimethylphenol	X		
106-42-3	p-Xylene	X	X	
106-44-5	p-Cresol	X	X	
106-46-7	1,4-Dichlorobenzene	X	X	X
106-47-8	p-Chloroaniline	X		
106-50-3	p-Phenylenediamine	X	X	
106-51-4	Quinone	X	X	
106-88-7	1,2-Butylene oxide	X	X	
106-89-8	Epichlorohydrin	X	X	X
106-93-4	1,2-Dibromoethane	X		
106-99-0	1,3-Butadiene	X	X	X
107-02-8	Acrolein	X	X	X
107-04-0	1-Bromo-2-chloroethane		X	
107-05-1	Allyl chloride	X	X	
107-06-2	1,2-Dichloroethane	X	X	X
107-11-9	Allylamine	X		
107-13-1	Acrylonitrile	X	X	X
107-18-6	Allyl alcohol	X	X	
107-19-7	Propargyl alcohol	X	X	

CAS Number	Chemical Name	TRI	NPRI	RETC
107-21-1	Ethylene glycol	X	X	
107-30-2	Chloromethyl methyl ether	X		
108-05-4	Vinyl acetate	X	X	
108-10-1	Methyl isobutyl ketone	X	X	
108-31-6	Maleic anhydride	X	X	
108-38-3	m-Xylene	X	X	
108-39-4	m-Cresol	X	X	
108-45-2	1,3-Phenylenediamine	X		
108-60-1	Bis(2-chloro-1-methylethyl) ether	X		
108-88-3	Toluene	X	X	
108-90-7	Chlorobenzene	X	X	X
108-93-0	Cyclohexanol	X	X	
108-95-2	Phenol	X	X	X
109-06-8	2-Methylpyridine	X	X	
109-77-3	Malononitrile	X		
109-86-4	2-Methoxyethanol	X	X	
110-49-6	2-Methoxyethyl acetate		X	
110-54-3	n-Hexane	X	X	
110-57-6	trans-1,4-Dichloro-2-butene	X		
110-80-5	2-Ethoxyethanol	X	X	X
110-82-7	Cyclohexane	X	X	
110-86-1	Pyridine	X	X	X
111-15-9	2-Ethoxyethyl acetate		X	
111-42-2	Diethanolamine	X	X	
111-44-4	Bis(2-chloroethyl) ether	X		
111-76-2	2-Butoxyethanol		X	
111-91-1	Bis(2-chloroethoxy) methane	X		
114-26-1	Propoxur	X		
115-07-1	Propylene	X	X	
115-28-6	Chlorendic acid	X	X	
115-29-7	Endosulfan			X
115-32-2	Dicofol	X		
116-06-3	Aldicarb	X		
117-79-3	2-Aminoanthraquinone	X		
117-81-7	Di(2-ethylhexyl) phthalate	X	X	
117-84-0	Di-n-octyl phthalate		X	
118-74-1	Hexachlorobenzene	X	X	X
119-90-4	3,3'-Dimethoxybenzidine	X		
119-93-7	3,3'-Dimethylbenzidine	X		

Annex 3. List of TRI, NPRI, and RETC Chemicals for 2002 Reporting Year (continued)

CAS Number	Chemical Name	TRI	NPRI	RETC
120-12-7	Anthracene	X	X	
120-36-5	2,4-DP	X		
120-58-1	Isosafrole	X	X	
120-71-8	p-Cresidine	X		
120-80-9	Catechol	X	X	
120-82-1	1,2,4-Trichlorobenzene	X	X	X
120-83-2	2,4-Dichlorophenol	X	X	
121-14-2	2,4-Dinitrotoluene	X	X	X
121-44-8	Triethylamine	X	X	
121-69-7	N,N-Dimethylaniline	X	X	
121-75-5	Malathion	X		
122-34-9	Simazine	X		
122-39-4	Diphenylamine	X	X	
122-66-7	1,2-Diphenylhydrazine	X		
123-31-9	Hydroquinone	X	X	
123-38-6	Propionaldehyde	X	X	
123-63-7	Paraldehyde	X	X	
123-72-8	Butyraldehyde	X	X	
123-91-1	1,4-Dioxane	X	X	X
124-38-9	Carbon dioxide			X
124-40-3	Dimethylamine	X	X	
124-73-2	Dibromotetrafluoroethane (Halon 2402)	X		
126-72-7	Tris(2,3-dibromopropyl) phosphate	X		
126-98-7	Methacrylonitrile	X		
126-99-8	Chloroprene	X		
127-18-4	Tetrachloroethylene	X	X	
128-03-0	Potassium dimethyldithio-carbamate	X		
128-04-1	Sodium dimethyldithio-carbamate	X		
128-37-0	2,6-Di-t-butyl-4-methylphenol		X	
128-66-5	C.I. Vat Yellow 4	X		
129-00-0	Pyrene		X	
131-11-3	Dimethyl phthalate	X	X	
131-52-2	Sodium pentachlorophenate	X		
132-27-4	Sodium o-phenylphenoxide	X		
132-64-9	Dibenzofuran	X		
133-06-2	Captan	X		
133-07-3	Folpet	X		
133-90-4	Chloramben	X		
134-29-2	o-Anisidine hydrochloride	X		
134-32-7	alpha-Naphthylamine	X		
135-20-6	Cupferron	X		
136-45-8	Dipropyl isocinchomeronate	X		
137-26-8	Thiram	X		
137-41-7	Potassium N-methyldithio-carbamate	X		
137-42-8	Metham sodium	X		
138-93-2	Disodium cyanodithioimido-carbonate	X		
139-13-9	Nitrilotriacetic acid	X	X	
139-65-1	4,4'-Thiodianiline	X		
140-88-5	Ethyl acrylate	X	X	
140-66-9	4-tert-Octylphenol		X	
141-32-2	Butyl acrylate	X	X	
142-59-6	Nabam	X		
148-79-8	Thiabenzazole	X		
149-30-4	2-Mercaptobenzothiazole	X	X	
150-50-5	Merphos	X		
150-68-5	Monuron	X		
151-56-4	Ethyleneimine	X		
156-10-5	p-Nitrosodiphenylamine	X		
156-62-7	Calcium cyanamide	X	X	
189-55-9	Dibenzo(a,i)pyrene	**	X	
191-24-2	Benzo(g,h,i)perylene	**	X	
192-97-2	Benzo(e)pyrene		X	
193-39-5	Indeno(1,2,3-c,d)pyrene	**	X	
194-59-2	7H-Dibenzo(c,g)carbazole	**	X	
198-55-0	Perylene		X	
205-82-3	Benzo(j)fluoranthene	**	X	
205-99-2	Benzo(b)fluoranthene	**	X	
206-44-0	Fluoranthene	**	X	
207-08-9	Benzo(k)fluoranthene	**	X	
218-01-9	Benzo(a)phenanthrene	**	X	
224-42-0	Dibenz(a,j)acridine	**	X	
298-00-0	Methyl parathion	X		X
300-76-5	Naled	X		
301-12-2	Oxydemeton methyl	X		

CAS Number	Chemical Name	TRI	NPRI	RETC
302-01-2	Hydrazine	X	X	X
306-83-2	2,2-Dichloro-1,1,1-trifluoroethane (HCFC-123)	X	X	
309-00-2	Aldrin	X		X
314-40-9	Bromacil	X		
319-84-6	alpha-Hexachlorocyclohexane	X		
330-54-1	Diuron	X		
330-55-2	Linuron	X		
333-41-5	Diazinon	X		
334-88-3	Diazomethane	X		
353-59-3	Bromochlorodifluoromethane (Halon 1211)	X	X	X
354-11-0	1,1,1,2-Tetrachloro-2-fluoroethane	X		
354-14-3	1,1,2,2-Tetrachloro-1-fluoroethane	X		
354-23-4	1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	X	X	
354-25-6	1-Chloro-1,1,2,2-tetrafluoroethane (HCFC-124a)	X	X	
357-57-3	Brucine	X		
422-44-6	1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225bb)	X		
422-48-0	2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC-225ba)	X		
422-56-0	3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	X		X
431-86-7	1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC-225da)	X		
460-35-5	3-Chloro-1,1,1-trifluoropropane (HCFC-253fb)	X		
463-58-1	Carbonyl sulfide	X		
465-73-6	Isodrin	X		
492-80-8	C.I. Solvent Yellow 34	X		
505-60-2	Mustard gas	X		
507-55-1	1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	X		X
510-15-6	Chlorobenzilate	X		
528-29-0	o-Dinitrobenzene	X		
532-27-4	2-Chloroacetophenone	X		
533-74-4	Dazomet	X		
534-52-1	4,6-Dinitro-o-cresol	X	X	X
540-59-0	1,2-Dichloroethylene	X		

CAS Number	Chemical Name	TRI	NPRI	RETC
541-41-3	Ethyl chloroformate	X	X	
541-53-7	2,4-Dithiobiuret	X		
541-73-1	1,3-Dichlorobenzene	X		
542-75-6	1,3-Dichloropropylene	X		
542-76-7	3-Chloropropionitrile	X	X	
542-88-1	Bis(chloromethyl) ether	X		X
554-13-2	Lithium carbonate	X	X	
556-61-6	Methyl isothiocyanate	X		
563-47-3	3-Chloro-2-methyl-1-propene	X	X	
569-64-2	C.I. Basic Green 4	X	X	
584-84-9	Toluene-2,4-diisocyanate	X	X	
593-60-2	Vinyl bromide	X		
594-42-3	Perchloromethyl mercaptan	X		
606-20-2	2,6-Dinitrotoluene	X	X	
608-93-5	Pentachlorobenzene	X		
612-82-8	3,3'-Dimethylbenzidine dihydrochloride	X		
612-83-9	3,3'-Dichlorobenzidine dihydrochloride	X	X	
615-05-4	2,4-Diaminoanisole	X		
615-28-1	1,2-Phenylenediamine dihydrochloride	X		
621-64-7	N-Nitrosodi-n-propylamine	X		
624-18-0	1,4-Phenylenediamine dihydrochloride	X		
624-83-9	Methyl isocyanate	X		
630-20-6	1,1,1,2-Tetrachloroethane	X	X	
636-21-5	o-Toluidine hydrochloride	X		
639-58-7	Triphenyltin chloride	X		
680-31-9	Hexamethylphosphoramide	X		
684-93-5	N-Nitroso-N-methylurea	X		
709-98-8	Propanil	X		
759-73-9	N-Nitroso-N-ethylurea	X		
759-94-4	Ethyl dipropylthiocarbamate	X		
764-41-0	1,4-Dichloro-2-butene	X		
812-04-4	1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b)	X	X	
834-12-8	Ametryn	X		
842-07-9	C.I. Solvent Yellow 14	X	X	
872-50-4	N-Methyl-2-pyrrolidone	X	X	
924-16-3	N-Nitrosodi-n-butylamine	X		

Annex 3. List of TRI, NPRI, and RETC Chemicals for 2002 Reporting Year (continued)

CAS Number	Chemical Name	TRI	NPRI	RETC	CAS Number	Chemical Name	TRI	NPRI	RETC
924-42-5	N-Methylolacrylamide	X	X		1937-37-7	C.I. Direct Black 38	X		
957-51-7	Diphenamid	X			1982-69-0	Sodium dicamba	X		
961-11-5	Tetrachlorvinphos	X			1983-10-4	Tributyltin fluoride	X		
989-38-8	C.I. Basic Red 1	X	X		2032-65-7	Methiocarb	X		
1114-71-2	Pebulate	X			2155-70-6	Tributyltin methacrylate	X		
1120-71-4	Propane sultone	X			2164-07-0	Dipotassium endothall	X		
1134-23-2	Cycloate	X			2164-17-2	Fluometuron	X		
1163-19-5	Decabromodiphenyl oxide	X	X		2212-67-1	Molinate	X		
1300-71-6	Dimethyl phenol		X		2234-13-1	Octochloronaphthalene	X		
1313-27-5	Molybdenum trioxide	X	X		2300-66-5	Dimethylamine dicamba	X		
1314-20-1	Thorium dioxide	X	X		2303-16-4	Diallate	X		
1319-77-3	Cresol (mixed isomers)	X	X		2303-17-5	Triallate	X		
1320-18-9	2,4-D Propylene glycol butyl ether ester	X			2312-35-8	Propargite	X		
1330-20-7	Xylene (mixed isomers)	X	X		2385-85-5	Mirex			X
1332-21-4	Asbestos (friable form)	X	X	X	2439-01-2	Chinomethionat	X		
1335-87-1	Hexachloronaphthalene	X			2439-10-3	Dodine	X		
1336-36-3	Polychlorinated biphenyls (PCBs)	X		X	2524-03-0	Dimethyl chlorothiophosphate	X		
1344-28-1	Aluminum oxide (fibrous forms)	X	X		2551-62-4	Sulfur hexafluoride		X	X
1464-53-5	Diepoxybutane	X			2602-46-2	C.I. Direct Blue 6	X		
1563-66-2	Carbofuran	X			2655-15-4	2,3,5-Trimethylphenyl methyl-carbamate	X		
1582-09-8	Trifluralin	X			2699-79-8	Sulfuryl fluoride	X		
1634-04-4	Methyl tert-butyl ether	X	X		2702-72-9	2,4-D Sodium salt	X		
1649-08-7	1,2-Dichloro-1,1-difluoroethane (HCFC-132b)	X			2832-40-8	C.I. Disperse Yellow 3	X	X	
1689-84-5	Bromoxynil	X			2837-89-0	2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	X	X	X
1689-99-2	Bromoxynil octanoate	X			2971-38-2	2,4-D Chlorocrotyl ester	X		
1717-00-6	1,1-Dichloro-1-fluoroethane (HCFC-141b)	X	X	X	3118-97-6	C.I. Solvent Orange 7	X	X	
1836-75-5	Nitrofen	X			3383-96-8	Temephos	X		
1861-40-1	Bentfluralin	X			3653-48-3	Methoxone, sodium salt	X		
1897-45-6	Chlorothalonil	X			3761-53-3	C.I. Food Red 5	X		
1910-42-5	Paraquat dichloride	X			4080-31-3	1-(β-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride	X		
1912-24-9	Atrazine	X			4098-71-9	Isophorone diisocyanate	***	X	
1918-00-9	Dicamba	X			4170-30-3	Crotonaldehyde	X	X	
1918-02-1	Picloram	X			4549-40-0	N-Nitrosomethylvinylamine	X		
1918-16-7	Propachlor	X			4680-78-8	C.I. Acid Green 3	X	X	
1928-43-4	2,4-D 2-Ethylhexyl ester	X			5124-30-1	1,1-Methylenbis(4-isocyanatocyclohexane)	***	X	
1929-73-3	2,4-D Butoxyethyl ester	X			5234-68-4	Carboxin	X		
1929-82-4	Nitrapyrin	X			5598-13-0	Chlorpyrifos methyl	X		

CAS Number	Chemical Name	TRI	NPRI	RETC
5902-51-2	Terbacil	X		
6459-94-5	C.I. Acid Red 114	X		
7287-19-6	Prometryn	X		
7311-27-5	2-(2-(2-(p-Nonylphenoxy)ethoxy)ethoxy)ethoxy ethanol		X	
7429-90-5	Aluminum (fume or dust)	X	X	
7439-92-1	Lead	X		
7439-96-5	Manganese	X		
7439-97-6	Mercury	X		
7440-02-0	Nickel	X		
7440-22-4	Silver	X		
7440-28-0	Thallium	X		
7440-36-0	Antimony	X		
7440-38-2	Arsenic	X		
7440-39-3	Barium	X		
7440-41-7	Beryllium	X		
7440-43-9	Cadmium	X		
7440-47-3	Chromium	X		
7440-48-4	Cobalt	X		
7440-50-8	Copper	X		
7440-62-2	Vanadium	X	X	
7440-66-6	Zinc (fume or dust)	X		
7550-45-0	Titanium tetrachloride	X	X	
7632-00-0	Sodium nitrite	X	X	
7637-07-2	Boron trifluoride	X	X	
7647-01-0	Hydrochloric acid	X	X	
7664-39-3	Hydrogen fluoride	X	X	
7664-41-7	Ammonia	X	X	
7664-93-9	Sulfuric acid	X	X	
7681-49-4	Sodium fluoride		X	
7696-12-0	Tetramethrin	X		
7697-37-2	Nitric acid	X	X	
7723-14-0	Phosphorus (yellow or white)	X	X	
7726-95-6	Bromine	X	X	
7758-01-2	Potassium bromate	X	X	
7782-41-4	Fluorine	X	X	
7782-49-2	Selenium	X		
7782-50-5	Chlorine	X	X	
7783-06-4	Hydrogen sulfide		X	X
7786-34-7	Mevinphos	X		

CAS Number	Chemical Name	TRI	NPRI	RETC
7789-75-5	Calcium fluoride		X	
7803-51-2	Phosphine	X		
8001-35-2	Toxaphene	X		X
8001-58-9	Creosote	X		
9006-42-2	Metiram	X		
9016-45-9	Nonylphenol polyethylene glycol ether		X	
9016-87-9	Polymeric diphenylmethane diisocyanate	***	X	
10028-15-6	Ozone	X		
10034-93-2	Hydrazine sulfate	X		
10049-04-4	Chlorine dioxide	X	X	X
10061-02-6	trans-1,3-Dichloropropene	X		
10102-43-9	Nitric oxide			X
10102-44-0	Nitrogen dioxide			X
10294-34-5	Boron trichloride	X		
10453-86-8	Resmethrin	X		
12122-67-7	Zineb	X		
12427-38-2	Maneb	X		
13194-48-4	Ethoprop	X		
13356-08-6	Fenbutatin oxide	X		
13463-40-6	Iron pentacarbonyl	X	X	
13474-88-9	1,1-Dichloro-1,2,2,3,3-pentafluoropropane (HCFC-225cc)	X		
13684-56-5	Desmedipham	X		
14484-64-1	Ferbam	X		
15646-96-5	2,4-Trimethylhexamethylene diisocyanate	***	X	
15972-60-8	Alachlor	X		
16071-86-6	C.I. Direct Brown 95	X		
16543-55-8	N-Nitrosomonicotine	X		
16938-22-0	2,2,4-Trimethylhexamethylene diisocyanate	***	X	
17804-35-2	Benomyl	X		
19044-88-3	Oryzalin	X		
19666-30-9	Oxydiazon	X		
20325-40-0	3,3'-Dimethoxybenzidine dihydrochloride	X		
20354-26-1	Methazole	X		
20427-84-3	2-(2-(p-Nonylphenoxy)ethoxy) ethanol		X	
20816-12-0	Osmium tetroxide	X		
20859-73-8	Aluminum phosphide	X		

Annex 3. List of TRI, NPRI, and RETC Chemicals for 2002 Reporting Year (continued)

CAS Number	Chemical Name	TRI	NPRI	RETC
21087-64-9	Metribuzin	X		
21725-46-2	Cyanazine	X		
22781-23-3	Bendiocarb	X		
23564-05-8	Thiophanate-methyl	X		
23564-06-9	Thiophanate ethyl	X		
23950-58-5	Pronamide	X		
25154-52-3	n-Nonylphenol (mixed isomers)		X	
25311-71-1	Isofenphos	X		
25321-14-6	Dinitrotoluene (mixed isomers)	X	X	
25321-22-6	Dichlorobenzene (mixed isomers)	X		
25376-45-8	Diaminotoluene (mixed isomers)	X		
26002-80-2	Phenothrin	X		
26027-38-3	p-Nonylphenol polyethylene glycol ether		X	
26471-62-5	Toluenediisocyanate (mixed isomers)	X	X	X
26628-22-8	Sodium azide	X		
26644-46-2	Triforine	X		
27177-05-5	Nonylphenol hepta(oxyethylene) ethanol		X	
27177-08-8	Nonylphenol nona(oxyethylene) ethanol		X	
27314-13-2	Norflurazon	X		
27986-36-3	Nonylphenoxy ethanol		X	
28057-48-9	d-trans-Allethrin	X		
28249-77-6	Thiobencarb	X		
28407-37-6	C.I. Direct Blue 218	X	X	
28679-13-2	Ethoxynonyl benzene		X	
29082-74-4	Octachlorostyrene	X		
29232-93-7	Pirimiphos methyl	X		
30560-19-1	Acephate	X		
31218-83-4	Propetampfos	X		
33089-61-1	Amitraz	X		
34014-18-1	Tebuthiuron	X		
34077-87-7	Dichlorotrifluoroethane (HCFC-123 and isomers)	X	X	X
35367-38-5	Diflubenzuron	X		
35400-43-2	Sulprofos	X		
35554-44-0	Imazalil	X		
35691-65-7	1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitrile	X		
37251-69-7	Oxirane, methyl-, polymer with oxirane, mono(nonylphenyl)ether		X	
38727-55-8	Diethatyl ethyl	X		
39156-41-7	2,4-Diaminoanisole sulfate	X		
39300-45-3	Dinocap	X		
39515-41-8	Fenpropathrin	X		
40487-42-1	Pendimethalin	X		
41198-08-7	Profenofos	X		
41766-75-0	3,3'-Dimethylbenzidine dihydrofluoride	X		
41834-16-6	HCFC-122 and all isomers		X	
42874-03-3	Oxyfluorfen	X		
43121-43-3	Triadimefon	X		
50471-44-8	Vinclozolin	X		
51235-04-2	Hexazinone	X		
51338-27-3	Diclofop methyl	X		
51630-58-1	Fenvalerate	X		
52645-53-1	Permethrin	X		
53404-19-6	Bromacil, lithium salt	X		
53404-37-8	2,4-D 2-Ethyl-4-methylpentyl ester	X		
53404-60-7	Dazomet, sodium salt	X		
55290-64-7	Dimethipin	X		
55406-53-6	3-Iodo-2-propynyl butylcarbamate	X		
57213-69-1	Triclopyr triethylammonium salt	X		
59669-26-0	Thiodicarb	X		
60168-88-9	Fenarimol	X		
60207-90-1	Propiconazole	X		
62476-59-9	Acifluorfen, sodium salt	X		
63938-10-3	Chlorotetrafluoroethane (HCFC-124 and isomers)	X	X	
64902-72-3	Chlorsulfuron	X		
64969-34-2	3,3'-Dichlorobenzidine sulfate	X		
66441-23-4	Fenoxaprop ethyl	X		
67485-29-4	Hydramethylnon	X		
68085-85-8	Cyhalothrin	X		
68359-37-5	Cyfluthrin	X		
68920-70-7	Polychlorinated alkanes (C6-C18)		X	

CAS Number	Chemical Name	TRI	NPRI	RETC
69409-94-5	Fluvalinate	X		
69806-50-4	Fluazifop butyl	X		
71751-41-2	Abamectin	X		
72178-02-0	Fomesafen	X		
72490-01-8	Fenoxycarb	X		
74051-80-2	Sethoxydim	X		
76578-14-8	Quizalofop-ethyl	X		
77501-63-4	Lactofen	X		
82657-04-3	Bifenthrin	X		
84852-15-3	Nonylphenol, industrial		X	
88671-89-0	Myclobutanil	X		
90454-18-5	Dichloro-1,1,2-trifluoroethane	X		
90982-32-4	Chlorimuron ethyl	X		
101200-48-0	Tribenuron methyl	X		
111512-56-2	1,1-Dichloro-1,2,3,3,3-pentafluoropropane (HCFC-225eb)	X		
111984-09-9	3,3'-Dimethoxybenzidine hydrochloride	X		
127564-92-5	Dichloropentafluoropropane	X		
128903-21-9	2,2-Dichloro-1,1,1,3,3-pentafluoropropane (HCFC-225aa)	X		
136013-79-1	1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225ea)	X		
	Antimony and its compounds****	X	X	
	Arsenic and its compounds	X	X	X
	Barium and its compounds	X		
	Beryllium and its compounds	X		
	Cadmium and its compounds	X	X	X
	Chlorophenols	X		
	Chromium and its compounds	X	X	X
	Cobalt and its compounds	X	X	
	Copper and its compounds	X	X	
	Cresol (mixed isomers)*****	X	X	
	Cyanide compounds	X	X	X
	Diisocyanates	X		
	Dioxins	X		X
	Ethylenebisdithiocarbamic acid, salts and esters	X		
	Furans			X
	Glycol ethers	X		

CAS Number	Chemical Name	TRI	NPRI	RETC
	Hydrobromofluorocarbons			X
	Hydrofluorocarbons			X
	Lead and its compounds	X	X	X
	Manganese and its compounds	X	X	
	Mercury and its compounds	X	X	X
	Nickel and its compounds	X	X	X
	Nicotine and salts	X		
	Nitrate compounds	X	X	
	Perfluorocarbons			X
	Polybrominated biphenyls	X		
	Polychlorinated alkanes (C10-C13)	X	X	
	Polycyclic aromatic compounds	X		
	Selenium and its compounds	X	X	
	Silver and its compounds	X	X	
	Strychnine and salts	X		
	Thallium and its compounds	X		
	Vanadium compounds	X	X	
	Warfarin and salts	X		X
	Xylenes*****	X	X	
	Zinc and its compounds	X	X	

* Part of lead and its compounds group.

** Reported under TRI as part of polycyclic aromatic compounds group.

*** Reported under TRI as part of diisocyanates group.

**** Elemental compounds are reported separately from their respective element in TRI and RETC and aggregated with it in NPRI.

***** Cresol isomers are reported separately in TRI and aggregated in NPRI.

***** Xylene isomers are reported separately in TRI and aggregated in NPRI.

***** TRI reporting stayed (facilities not currently required to report).

***** Reported under TRI as part of glycol ethers group.

Annex 4. Chemical Additions or Changes in NPRI and/or TRI

CAS Number	Chemical	On PRTR List			Additions or Changes	
		NPRI	TRI	RETC	NPRI	TRI

ADDITIONS/CHANGES AT HIGHER THRESHOLD

68-12-2	N,N-Dimethylformamide	X	X		X	
7440-62-2	Vanadium (except when contained in alloy)	X	X		X	X
--	Vanadium compounds	X	X		X	X
9016-87-9	Polymeric diphenylmethane diisocyanate	X	X		X	
140-66-9	4-tert-Octylphenol	X			X	
37251-69-7	Oxirane, methyl-, polymer with oxirane, mono(nonylphenyl)ether	X			X	

ADDITIONS/CHANGES AT LOWER THRESHOLDS

--	Mercury (and its compounds)	X	X	X	X	X
--	Lead (and its compounds)	X	X	X	X	X
78-00-2	Tetraethyl lead	X	X	X	X	X
--	Arsenic (and its compounds)	X	X	X	X	
--	Cadmium (and its compounds)	X	X	X	X	
--	Hexavalent chromium compounds	X	X		X	
118-74-1	Hexachlorobenzene	X	X	X	X	X
--	Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans	X	X	X	X	X
191-24-2	Benzo(g,h,i)perylene	X	X		X	X

Threshold				Comments on Thresholds
NPRI	TRI	RETC	RETC	
(MPO is manufactured, processed or otherwise used)			Released on-site	

10,000 kg MPO	11,340 kg MPO*	--	--	NPRI/TRI match
10,000 kg MPO	11,340 kg MPO*	--	--	NPRI/TRI match as category Vanadium and its compounds.
10,000 kg MPO	11,340 kg MPO*	--	--	
10,000 kg MPO	11,340 kg MPO*	--	--	NPRI/TRI not match because reported as part of Diisocyanate group in TRI.
10,000 kg MPO	--	--	--	
10,000 kg MPO	--	--	--	

5 kg MPO	4.5 kg MPO	5 kg MPO	1 kg released on-site	NPRI/TRI/RETC MPO thresholds match. RETC released on-site threshold not match.
50 kg MPO for 2002 and later	45 kg MPO for 2001 and later	5 kg MPO	1 kg released on-site	RETC released on-site threshold not match. NPRI/TRI match for 2002 and later.
50 kg MPO for 2002 and later	45 kg MPO for 2001 and later (part of lead compounds category)	5 kg MPO (part of lead and its compounds category)	1 kg released on-site (part of lead and its compounds category)	RETC released on-site threshold not match. NPRI/TRI match for 2002 and later.
50 kg MPO	11,340 kg MPO*	5 kg MPO	1 kg released on-site	NPRI/TRI thresholds not match. RETC released on-site threshold not match.
50 kg MPO	11,340 kg MPO*	5 kg MPO	1 kg released on-site	NPRI/TRI thresholds not match. RETC released on-site threshold not match.
50 kg MPO	11,340 kg MPO* (part of chromium compounds category)	5 kg MPO (part of chromium and its compounds category)	1 kg released on-site (part of chromium and its compounds category)	NPRI/TRI thresholds not match. RETC released on-site threshold not match.
0 kg, but only certain industrial processes	4.5 kg MPO	5 kg MPO	1,000 kg released on-site	NPRI/TRI thresholds not match. TRI/RETC MPO threshold match. RETC released on-site threshold not match.
0 kg (TEQ reported, only certain industrial processes)	0.1 gram (amounts reported)	0 kg	0 kg	Thresholds and reporting definitions not match
50 kg released or transferred (part of PAH group threshold)	4.5 kg MPO	--	--	NPRI/TRI thresholds not match

Annex 4. Chemical Additions or Changes in NPRI and/or TRI (continued)

CAS Number	Chemical	On PRTR List			Additions or Changes	
		NPRI	TRI	RETC	NPRI	TRI
85-01-8	Phenanthrene**	X	X		X	
--	Polycyclic aromatic compounds (PAC/PAHs)	X	X		X	X
198-55-0	Perylene	X			X	
129-00-0	Pyrene	X			X	
309-00-2	Aldrin		X	X		X
57-74-9	Chlordane		X	X		X
76-44-8	Heptachlor		X	X		X
465-73-6	Isodrin		X			X
72-43-5	Methoxychlor		X			X
29082-74-4	Octachlorostyrene		X			X
40487-42-1	Pendimethalin		X			X
608-93-5	Pentachlorobenzene		X			X
1336-36-3	Polychlorinated biphenyl (PCBs)	X*	X		X*	X
79-94-7	Tetrabromobisphenol A		X			X
8001-35-2	Toxaphene		X	X		X
1582-09-8	Trifluralin		X			X

Threshold				Comments on Thresholds
NPRI	TRI	RETC	RETC	
(MPO is manufactured, processed or otherwise used)			Rel eased on-site	
50 kg released or transferred (part of PAH group threshold)	11,340 kg MPO*	--	--	NPRI/TRI thresholds not match
50 kg released or transferred (total for all PAHs)	45 kg MPO (total for all PAHs)	--	--	NPRI/TRI not match because TRI reports PAHs as a group and NPRI does not.
50 kg released or transferred (part of PAH group threshold)	--	--	--	
50 kg released or transferred (part of PAH group threshold)	--	--	--	
--	45 kg MPO	50 kg MPO	100 kg re-leased on-site	TRI/RETC MPO thresholds match. RETC on-site release thresholds not match.
--	4.5 kg MPO	5 kg MPO	100 kg re-leased on-site	TRI/RETC MPO thresholds match. RETC on-site release thresholds not match.
--	4.5 kg MPO	5 kg MPO	100 kg re-leased on-site	TRI/RETC MPO thresholds match. RETC on-site release thresholds not match.
--	4.5 kg MPO	--	--	
--	45 kg MPO	--	--	
--	4.5 kg MPO	--	--	
--	45 kg MPO	--	--	
--	4.5 kg MPO	--	--	
5 kg MPO**	4.5 kg MPO	--	--	
--	45 kg MPO	--	--	
--	4.5 kg MPO	5 kg MPO	100 kg re-leased on-site	TRI/RETC MPO thresholds match. RETC on-site release thresholds not match.
--	45 kg MPO	--	--	

* 25,000 pounds (11,340 kg) for manufactured and processed, 10,000 pounds (4,535 kg) for otherwise used

**NPRI proposed addition for 2004

Annex 5. Diisocyanates Reporting

CAS Number	Chemical	ON PRTR LIST		
		NPRI	TRI	RETC
38661-72-2	1,3-Bis(methylisocyanate)-cyclohexane		X	
10347-54-3	1,4-Bis(methylisocyanate)-cyclohexane		X	
2556-36-7	1,4-Cyclohexane diisocyanate		X	
134190-37-7	Diethyldiisocyanatobenzene		X	
4128-73-8	4,4'-Diisocyanatodiphenyl sulfide		X	
75790-87-3	2,4'-Diisocyanatodiphenyl sulfide		X	
91-93-0	3,3'-Dimethoxybenzidine-4,4'-diisocyanate		X	
91-97-4	3,3'-Dimethyl-4,4'-diphenylene diisocyanate		X	
139-25-3	3,3'-Dimethyldiphenyl methane-4,4'-diisocyanate		X	
822-06-0	Hexamethylene-1,6'-diisocyanate		X	
4098-71-9	Isophorone diisocyanate	X	X	
75790-84-0	4-Methyldiphenylmethane-3,4-diisocyanate		X	
5124-30-1	1,1-Methylene bis(4-isocyanatocyclohexane)	X	X	
101-68-8	Methylene bis(phenylisocyanate) (MDI)	X	X	
3173-72-6	1,5-Naphthalene diisocyanate		X	
123-61-5	1,3-Phenylene diisocyanate		X	
104-49-4	1,4-Phenylene diisocyanate		X	
9016-87-9	Polymeric diphenylmethane diisocyanate	X	X	
16938-22-0	2,2,4-Trimethylhexamethylene diisocyanate	X	X	
15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate	X	X	

Note: TRI reports on diisocyanates as one amount for the group of 20 chemicals. NPRI reports amounts for each of the 6 individual chemicals. Therefore, the diisocyanate group is not comparable.

Annex 6. Polycyclic Aromatic Compounds (PACs/PAHs) Reported at Lower Thresholds

CAS Number	Chemical	ON PRTR LIST		
		NPRI	TRI	RETC
56-55-3	Benzo(a)anthracene	X	X	
218-01-9	Benzo(a)phenanthrene	X	X	
50-32-8	Benzo(a)pyrene	X	X	
205-99-2	Benzo(b)fluoranthene	X	X	
205-82-3	Benzo(j)fluoranthene	X	X	
207-08-9	Benzo(k)fluoranthene	X	X	
224-42-0	Dibenzo(a,j)acridine	X	X	
53-70-3	Dibenzo(a,h)anthracene	X	X	
189-55-9	Dibenzo(a,i)pyrene	X	X	
194-59-2	7H-Dibenzo(c,g)carbazole	X	X	
206-44-0	Fluoranthene	X	X	
193-39-5	Indeno[1,2,3-cd]pyrene	X	X	
191-24-2	Benzo(g,h,i)perylene	X	X*	
85-01-8	Phenanthrene	X	X*	
192-97-2	Benzo(e)pyrene	X		
129-00-0	Pyrene	X		
198-55-0	Perylene	X		
226-36-8	Dibenzo(a,h)acridine		X	
5385-75-1	Dibenzo(a,e)fluoranthene		X	
192-65-4	Dibenzo(a,e)pyrene		X	
189-64-0	Dibenzo(a,h)pyrene		X	
191-30-0	Dibenzo(a,l)pyrene		X	
57-97-6	7,12-Dimethylbenz(a)anthracene		X	
56-49-5	3-Methylcholanthrene		X	
3697-24-3	5-Methylchrysene		X	
5522-43-0	1-Nitropyrene		X	

Note: TRI reports on PAHs as one amount for the group chemicals. NPRI reports amounts for each chemical individually. Therefore, the PAH group is not comparable.

* Reported separately from PAH group in TRI.

Annex 7. Industry Specific Data Available on Criteria Air Contaminants

	CANADA	UNITED STATES	MEXICO COA Section 2	ALL THREE COUNTRIES
Carbon monoxide	X	X	X	X
Carbon dioxide			X	
Lead	X*	X	X*	
Nitrogen dioxide/Nitrogen oxides	X	X	X	X
Total Suspended Particulates	X		X	
PM 10	X	X	voluntary	
PM 2.5	X	X		
Sulfur dioxide/Sulfur oxides	X	X	X	X
Volatile organic compounds	X	X	X	X
Unburned hydrocarbons			X	

Note: Criteria air contaminants have been added to NPRI for 2002 reporting year. They are not reported to TRI, data are available from other sources.

* Lead is not listed as a criteria air contaminant in Canada and Mexico, but is reported on NPRI, TRI and RETC.



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