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











Ottawa, 19 June 2002

COUNCIL RESOLUTION 02-05

Action Plan to Enhance Comparability Among Pollutant Release and Transfer Registers (PRTRs) in North America

THE COUNCIL:

REAFFIRMING the goals and principles outlined in Council Resolutions 97-04 and 00-07;

NOTING the progress achieved on the objectives set forth in Council Resolution 97-04 on enhancing comparability of PRTRs, including the annual publication of the *Taking Stock* report, and the successful development of the "*Taking Stock* Online" web site, which provides users with flexible access to the matched North American data sets;

ENCOURAGED by the progress achieved since the adoption of Council Resolution 97-04 in increasing the comparability among the PRTR systems in North America, in particular, the important step taken by Mexico with its passage of enabling legislation for a mandatory and publicly accessible PRTR, and the developments in the Canadian and United States PRTRs that have led to a 50 percent increase in the amount of data that are now comparable on a cross-border basis;

REAFFIRMING the importance of continued cooperation among the national PRTRs as a means of promoting enhanced comparability and improvements, and the role of the Commission for Environmental Cooperation (CEC) in facilitating this process:

NOTING WITH INTEREST recent activities of the CEC to promote and explore uses of PRTR data, including the outcomes of the workshop of 23 March 2002, among academics in North America on the diverse uses of PRTR data in academic and policy-relevant research; the work of the Ad Hoc PRTR group to promote PRTR development, access and use;

FURTHER NOTING WITH INTEREST the recommendations of the PRTR Coordinating Group to strengthen linkages with the Sound Management of Chemicals project (SMOC) on chemicals of common concern, including mercury, dioxins, furnas and hexachlorobenzene, as a means of promoting and tracking reductions; and the value of PRTR data for improving our understanding of the movement of specific chemicals in hazardous waste that are shipped off-site from facilities and, in some cases, across borders;

CONSIDERING the increasing focus on PRTRs worldwide, and the increasing interest of other countries and regions in the experiences gained in North America with compiling and tracking PRTR data on a regional basis;

NOTING the involvement of the CEC and the Parties in relevant international fora including the Inter-Organisation Programme for the Sound Management of Chemicals PRTR Coordinating Group and the Intergovernmental Forum on Chemical Safety;

Commission for Environmental Cooperation of North America

Comisión para la Cooperación Ambiental de América del Norte

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

The **Commission for Environmental Cooperation** (CEC) of North America was established to build cooperation among the NAFTA partners—Canada, Mexico and the United States—in protecting shared environments, with a particular focus on the opportunities and challenges presented by continent-wide free trade.

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Design & Layout: orangetango Illustration: Lino Printed in Canada

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INTRODUCTION e 1997, the CEC Council, comprised of the top envi

In June 1997, the CEC Council, comprised of the top environmental officials in the three North American countries, signed Council Resolution 97–04: Promoting Comparability of Pollutant Release and Transfer Register (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. Through the CEC's PRTR project, the national PRTR program officials from Canada, Mexico and the United States collaborated on the development of the present *Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America*, which was adopted by the CEC Council in June 2002 through Council Resolution 02–05.

This document 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 document 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.

PROGRESS TO DATE

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. The aim is to increase the amount of data available 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. 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 Transferencias de Contaminantes (RETC) will be included as comparable data become available.

Since the countries began collaborating in the context of the CEC The result of these changes has been an increase in general from PRTR project, a number of steps have been taken by the US 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 ٠ 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 reporting year) and addition of persistent, bioaccumulative toxic (PBT) chemicals (NPRI and TRI, 2000 reporting year),
- modification of pollution prevention reporting (NPRI categories ٠ expanded for 2002 reporting year, are now comparable with TRI).

about 40 percent to about 60 percent of the PRTR data that can now be included in the matched database that forms the basis of the Taking Stock reports.

In Mexico, the focus has been on establishing and implementing the national PRTR program, a process which began in 1994. In April 2001, a voluntary standard (Norma Mexicana-NMx) was adopted, which specifies the list of substances, reporting parameters and other aspects of the voluntary RETC system. The current focus is to operationalize a mandatory system of reporting. In December 2001, the Mexican Congress passed enabling legislation for mandatory reporting. The Mexican Federal Ministry for Environment and Natural Resources (Semarnat), the states, the Federal District and municipalities are now required to integrate an RETC based on the data and documents contained in the environmental authorizations, licenses, reports, permits In addition to actions taken by the individual PRTR programs, a numand concessions received by the different authorities, based on information provided by the responsible persons at the facilities. The reported information is to be made public and access to this information is given by the Ministry and will be actively disseminated. A specific RETC regulation to implement the law's mandate is under development.

The adoption of a mandatory requirement for RETC reporting pollutant data. As part of the process of creating the matched data and making the data publicly accessible are considered the most important steps towards achieving comparability among the three national PRTRs. The way in which the reporting thresholds are defined under the RETC, which fundamentally differs from the approach used by Canada and the US, poses another important challenge to comparability among the three North American systems.

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. 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 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, 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. The table in the Annex 1, "Status of Comparability Among the National PRTR Programs in North America," outlines the data elements of the three countries' PRTR systems that are currently not comparable.

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 will be assessed on an annual basis. This action plan will also be updated each year, with revised and/or new goals and actions added on a rolling basis.

1. MANDATORY REPORTING ON COMPARABLE MEDIA AND TRANSFER TYPES

Currently, reporting by facilities is mandatory for both NPRI and TRI received by Semarnat, the states, the Federal District and municifor on-site releases to air, water, land and underground injection and for off-site transfers to recycling, energy recovery, sewage, treatment and disposal. Reporting by facilities under the RETC, which is Section 5 of the annual certificate of operation, the Cédula de Operación Anual (COA) and the reporting mechanism most closely related to the PRTR systems of the US and Canada, has been voluntary.

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 comparable with NPRI and TRI.

palities into an RETC. Work has begun on the regulations, with the aim of having facilities report in 2003 for the 2002 reporting year. The hope is to involve industry and the public in this process.

Proposed approach: US and Canada to provide input on their experiences in developing a PRTR, as an aid to developing the Mexican PRTR and to help build awareness among industry and the public on its usefulness. Encourage Mexico to build on the RETC (Section 5 of COA) and to take steps, as described below, to make it more

2. IDENTIFICATION OF INDUSTRIES AND INDUSTRY SECTORS

Industrial Classification

cannot be linked across all three systems is industrial classification. At present, Mexico, Canada, and the US 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 codes, so data from these two PRTRs can be compared. The RETC, however, uses *Clasificación Mexicana de Actividades* y is further limited to those facilities using a thermal or foundry process. Productos (CMAP) codes that are unique to Mexico. Such diffe- Under the new legislation, additional sectors may be reporting through rences mean that RETC data will not be readily comparable to NPRI state and municipal systems. and TRI data.

Over the long term, this problem will disappear if all three countries certain sector non-comparable. Metal mining cannot be compared adopt the North American Industrial Classification System (NAICS). Environment Canada has added the NAICS code for the 1999 NPRI reporting year and has said it will continue to require facilities to report investigated the differences and found they could not be reconciled the US SIC Code.

While current statistical reports in Mexico and the RETC use the CMAP codes, the National Statistical Office of Mexico (INEGI) has indicated that they will translate the codes to NAICS, but more information on this is needed.

EPA is working on implementing NAICS in TRI and aims to have a proposed rule by the end of 2002 ready for the reporting year 2003. included in the matched North American data sets.

Proposed approach: Continue to include the US SIC code on NPRI reports until TRI adopts the NAICS system. Encourage the TRI and RETC to implement the use of the NAICS system. If the RETC data become available before the NAICS is added to the TRI, encourage Mexico to provide CEC with a US SIC code for each RETC facility

Industry Sector Reporting

The most important data field in the North American PRTRs that 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, section five of which is the RETC. 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. In Mexico, reporting

> Differences in reporting requirements may also render data from a between NPRI and TRI because TRI includes reporting on waste rock, and NPRI does not require this information to be reported. CEC for comparative analysis.

> Proposed approach: CEC to prepare an analysis of industry sectors that report to NPRI, TRI and RETC. Encourage Mexico and US to require other industry sectors to report, basing the reporting requirements on comparable definitions, as appropriate, taking into account national circumstances. CEC to prepare an analysis of the SMOC chemicals to see if there are important industry sectors that currently cannot be

3. LIST OF CHEMICALS

Comparability Among the Three Lists of Substances: Of the chemicals added for the 2000 reporting year, seven are on both TRI. NPRI and RETC

The list of chemicals in common to all three systems is not extensive. For the 1999 reporting year, there are approximately 200 chemicals on both the NPRI and TRI lists. Mexico has issued a list of 104 chemicals. This list will be reviewed in 2002, and officially established through a Mexican Official Standard. Comparing the three lists gives only 59 chemicals in common. An additional 29 RETC chemicals are on the TRI list, but not on the NPRI list. No chemicals are on both the NPRI and RETC lists, but not on the TRI list. (See Annex 2.)

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 to forward information on their chemical lists, criteria for inclusion and criteria for additions/deletions

Comparability of Persistent, Bioaccumulative Toxics (PBTs) and Substances Added or Modified in 2000

For the 2000 reporting year. NPRI and TRI have added PBTs to their lists. Several issues arise for this set of chemicals: the chemicals added are not all the same, the reporting thresholds have been lowered and to different levels in some cases; in some cases the thresholds have different bases (amounts of releases and transfers as opposed to amounts manufactured, processed or otherwise used); the sources required to report differ in some cases, and the definition for reporting of dioxins/furans is not the same. NPRI limits reporting of industry sectors to see if reporting is similar enough to include in the dioxins/furans to specific activities or processes and reports the toxic equivalent while TRI does not limit reporting to specific activities and reports the amount. RETC reporting on dioxins/furans is similar to TRI.

Of the chemicals added to NPRI for the 2000 reporting year, four are on the RETC list and the TRI list. Three additional PBTs on the TRI list are on the RETC list, but not on the NPRI list. (See Annex 3.)

TRI and NPRI. However, of the seven, three have the same reporting threshold under TRI and NPRI (acrolein, mercury and xylenes), three have different thresholds (benzo(g,h,i)perylene, hexachlorobenzene and phenanthrene), and one (dioxins/furans) has a different reporting definition. Hexachlorobenzene is also limited to reporting by certain activities or processes in NPRI. None of the PBTs on the RETC have comparable reporting thresholds.

Proposed approach: CEC to analyze the unique information on PBTs from each system to illustrate potential opportunities for additions and/or changes to reporting requirements under the national systems that would increase data comparability for these chemicals.

Comparability of Diisocyanates

TRI reports one amount for a group of 20 diisocyanates. 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 4.) NPRI aims to introduce a proposal to add comparable diisocyanates, probably in 2003.

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 use in each country. US to provide information on how they selected the individual diisocyanates on the TRI list. CEC to compare diisocyanate data by amounts and matched dataset.

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 5.)

Proposed approach: CEC to assist countries in working together to understand the differences in PAH reporting with the goal of making the PAH reporting more comparable, taking into consideration national circumstances. 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. CEC to coordinate comparison of PAH data by chemical, amounts (estimated and measured) and industry sectors to see if reporting is similar enough to include in the matched dataset.

Criteria Air Contaminants

Reporting on four criteria air contaminants by Mexican facilities is mandatory under Section 2 of the Cédula de Operación Anual (COA): nitrogen oxide, particulates, sulfur oxide, and volatile organic compounds. NPRI has added the reporting of criteria air contaminants for the 2002 reporting year. Currently there are no plans to add criteria air contaminants to TRI. Each country has a different list of substances that are considered to be "criteria" or "common" air contaminants. Only five categories, nitrogen oxides, particulates, sulfur oxides, volatile organic compounds and carbon monoxide (which is listed but is voluntary under the COA), are considered criteria air contaminants by all three countries. (See Annex 6.)

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.

4. REPORTING THRESHOLDS AND EXEMPTIONS

Reporting Thresholds

Most chemicals on the NPRI and TRI lists are subject to a "manufac- Several types of facilities and activities are exempted from NPRI and turing, processing and use" threshold. This threshold requires a facility to report on the chemical if it manufactures, processes or otherwise uses the chemical above a certain amount. However, all chemicals on the RETC list are subject to an on-site "release" threshold, whereby these exemptions. NPRI is making changes to these exemptions in the facility must report if the chemical is released on-site in quantities 2002, and TRI is working on revising the exemptions for 2004. greater than a certain amount. For the PAHs on the NPRI list, the threshold is based on a "release/transfer" threshold, including on-site releases and off-site transfers to disposal.

This presents an obstacle to comparability between the RETC data and the data collected under the NPRI and TRI. Even though RETC facilities report the amount "used" on-site, including only those that report an amount that falls above the "use" thresholds for NPRI and TRI would not be a solution. Such an approach would miss those facilities that did not report in the first place because they did not meet the on-site release thresholds that trigger RETC reporting. Similarly, including only those NPRI and TRI facilities that report releases above the RETC "release" threshold will miss those facilities that released those amounts but that did not report because they did not meet the NPRI/TRI "use" threshold.

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 "manufacturing, processing and use" thresholds.

Exemptions

TRI reporting. These include motor vehicle maintenance and repair, janitorial and personal use. These exemptions are currently under review in both Canada and the United States. RETC does not have

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

5. OTHER DATA ELEMENTS

Accidental Spills

given year is reported on the PRTR forms. TRI and NPRI include the amount of the spill in on-site releases by media and in transfers off-site. The RETC reports one number per event and does not indicate how much was released on-site or transferred off-site nor does it specify the environmental media. Without this differentiation. NPRI/TRI release and transfer amounts are not comparable to RETC comparability between TRI and NPRI on pollution prevention reporting. release and transfer amounts.

Proposed approach: Encourage RETC to add reporting on the different amounts of air emissions, water discharges, land disposal and transfers that were due to accidental spills. CEC to prepare an analysis of the reporting guidelines for reporting accidental spills in the three countries to provide background for discussion among the three countries of options to increase comparability.

Pollution Prevention (Source Reduction) Reporting

The three North American countries have varving definitions of pollution prevention. In the US, it is defined to include only source reduction activities. In Canada, the definition includes source reduction as well as training. In Mexico, pollution prevention encompasses source reduction, recycling and pollution control activities.

In the context of PRTRs, several aspects of reporting on pollution prevention activities differ among the countries. The specific activities included differ, but also how reporting is being done may differ.

All three countries have a list of pollution prevention categories for facilities to choose from, to indicate which pollution prevention activities they have undertaken during the year. TRI has 43 specific categories guidance and categories in the three countries.

and NPRI has recently expanded their 7 general categories to encom-The amount of waste from accidental spills or remedial actions in a pass the TRI categories, and the RETC (Section 5.4.2 of COA) has 8 categories. (See Annex 7.) NPRI has amended its pollution prevention reporting starting with the 2002 reporting year. The categories of pollution prevention are subdivided to provide a more detailed breakdown of pollution prevention methods. With few exceptions, these methods are similar to TRI reporting. This change will greatly increase the

> Comments supplied by NPRI facilities on their form indicate some facilities are reporting pollution control activities (for example, installation of treatment systems) in this section of the form. The TRI database does not have comments from facilities, but they must check one or more of the 43 specific activities and these activities do not include pollution control projects. For RETC, one category is specifically in situ treatment, so it would be clear if the form indicated pollution control practices.

> One other difference may be the time frame covered. Some facilities may be reporting ongoing activities that began in earlier years. The TRI form specifies that facilities are to report activities "engaged in during the reporting year," while the NPRI form does not specify. Separate instructions for both NPRI and TRI indicate the reporting should cover activities done during the calendar year. The RETC form states that only "changes" in the activities should be reported.

> Proposed approach: Encourage RETC to review the pollution prevention reporting categories and instructions with a view to improving the comparability of the categories and their focus on pollution prevention activities. CEC to provide analysis of the pollution prevention reporting

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 is reported to TRI along with an identification number based on the Dun and Bradstreet service. EPA attempts to standardize the spelling of the parent company name in the TRI database, but does not check the identification number. EPA plans to maintain a separate centralized database of facility and parent company identification information that would include TRI facility identification, as well as that for other environmental programs.

Environment Canada is standardizing the facility and parent company names in NPRI and has recently added a numbering system based on the Dun and Bradstreet service. Both TRI and NPRI instruct the facility to report the parent company at the national, rather than international, level.

Parent company name only is reported to RETC.

Because all three systems depend on standardizing the spelling of a name for parent companies, rather than an identification number, a list of agreed-upon conventions to follow would be useful. To help address this need, CEC developed a list of standardized parent company names, based on 1998 data, which the national programs can distribute in their reporting guidance. An agreed-upon approach for decisions as to whether or not related companies operating in more than one of the countries have the same parent company also would be useful. **Proposed approach:** Continue tri-lateral 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 RETC to add reporting of the parent company Dun and Bradstreet number. CEC to provide support to RETC in accessing Dun and Bradstreet information and other efforts at standardization.

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. RETC has only a permit number or, if no permit number, then a name, but no address.

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. TRI is developing standardized site names and addresses for the 2003 reporting year.

Proposed approach: Each country should be responsible for standardizing the name and location information for all sites within its borders. RETC should add the name and address of the transfer site in addition to the permit number. CEC to provide the standardized names and numbers for transfer sites involved in cross-border transfers, as found in the matched dataset.

Off-site Transfer Amount Identification

Both TRI and NPRI require reporting of the name and address of the transfer location for each type and amount of transfer. For example, if a chemical is transferred to one site for both recycling and disposal, then the amount of the chemical transferred for recycling is reported separately from the amount transferred for disposal. The RETC currently reports one total amount, not differentiated by site or type of transfers. In order to be compared with TRI and NPRI, the transfers need to be identified by type since the different types are analyzed separately in *Taking Stock*.

Proposed approach: Encourage RETC to add reporting by transfer site and transfer type

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. Neither TRI nor RETC have this type of reporting.

Proposed approach: Encourage TRI and RETC to incorporate provisions for recording the facility's comments on their forms

6. 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 made available. The enabling legislation passed by the Mexican Congress in December 2002 states that the reported information will be public and access to the information will be given by the Ministry and actively disseminated.

The countries have different approaches for safeguarding confidential business information and for informing the public of what has been held from disclosure. When data are claimed confidential under TRI, the substance is given a generic chemical name, 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. Under the current NMx (voluntary standard) for the RETC, in effect all data reported by a facility is treated as confidential. The government may only publish data on an aggregated basis or if written permission is granted by the facility. This situation is likely to change pursuant to the new legislation.

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. CEC to prepare 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.

7. 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
- reporting of production/activity index

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

US Toxics Release Inventory Canadian Nat Major Data Elements (TRI) Release Inve		Canadian National Pollutant Release Inventory (NPRI)	Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC Section 5 of COA)	Status of Comparability*	
Industry Sectors					
Industry sectors reporting facilities, electric utilities, mining, hazardous waste management, solvent rec chemical wholesalers, pet 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.	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).	
Industry classification Facility reports all US SIC codes applicable to its operations.		One primary SIC code per facility. Facility reports Canadian SIC code, NAICS and US SIC code.	One CMAP code per facility.	Not comparable. Currently, NPRI-TRI data comparability is enabled by NPRI requiring facilities to also report US SIC code	
List of chemicals	1	1	l		
Current Lists (2000 reporting year)	612 substances and 28 chemical categories.	268 chemicals	104 chemicals.	59 match TRI/NPRI/RETC. 206 match NPRI/TRI. See Annex 2.	
PBT additions (2000 reporting year)	6 chemicals added. 11 chemicals with "manufac- ture, process, use" thresholds lowered.	23 chemicals added. Some are based on "release/transfer" threshold. 1 chemical with lowered "manufacture, process, use" threshold.	None added. Thresholds based on "release" threshold.	Generally not comparable because thresholds do not match. See Annex 3.	
Diisocyanates	Report one amount for group of diisocyanates.	Report amounts for each diisocyanate.	No diisocyanates on list.	NPRI list not match TRI group so not comparable. See Annex 4.	
PAHs	Report one amount for group of PAHs.	Report amounts for each PAH.	No PAHs on list.	NPRI list not match TRI group so not comparable. See Annex 5.	
Criteria air contaminants	Not on TRI	To be added to NPRI	Mandatory reporting on 4 (nitrogen oxide, particulates, sulfur dioxide, VOCs) in Section 2 of COA.	Not comparable. See Annex 6.	

* 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.

Major Data Elements	US Toxics Release Inventory (TRI)	Canadian National Pollutant Release Inventory (NPRI)	Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC Section 5 of COA)	Status of Comparability*					
Reporting Thresholds	and Exemptions		-						
Thresholds	Manufacture/process more than 25,000 pounds (11,338 kg) or use more than 10,000 pounds (4,535 kg); For certain chemicals, different levels (manufacture, process or use 100 pounds, 1000 pounds or 0.1 gram) have been set.	Manufacture, process or use 10 tonnes (10,000 kg) or more. For certain chemicals, thresholds are based on amount of on-site releases and transfers to disposal.	Based on amount of on-site releases, by category of substance	RETC not comparable with NPRI/TRI. Not comparable for most NPRI/TRI chemicals with lowered thresholds or thresholds based on releases and transfers to disposal. See Annex 3.					
Exemptions	Motor vehicle maintenance, janitorial or personal use, chemicals in intake water or air.	Janitorial or facility grounds maintenance, maintenance and repair of transportation vehicles	None	TRI and NPRI are comparable, however both programs are revising which may affect future comparability. RETC not comparable.					
Other Data Elements	Other Data Elements								
Accidental spills	Included in on-site releases and off-site transfer amounts.	Reported as separate item in on-site releases. Included in off-site transfer amounts.	Reported as single amount only without differentiating by media. Not included in on-site releases or transfer amounts.	RETC not comparable to NPRI/TRI.					
Pollution Prevention/ Source Reduction	Type of pollution prevention activity (43 categories)	Type of pollution prevention activity (7 categories)	Type of pollution prevention activity (8 categories).	Some elements comparable if aggregated into a few general categories. See Annex 7.					
Parent company name/address	Parent company name and D&B number; no address	Parent company name and D&B number and address	Parent company name	Not comparable. Must standardize name based on manual inspection to compare.					
Off-site transfer location identification	Name, address and permit number	Name and address	Permit number or name	Cannot identify where transfers are sent in RETC (necessary for cross boundary transfers analyses).					
Reasons for change from year to year.	Not reported.	Reported.	Not reported.	Not comparable.					
Legal Basis	1	1	1	1					
Mandatory/ Voluntary Reporting	Mandatory.	Mandatory.	Voluntary.	Only mandatory data are comparable.					

* 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.

Major Data Elements	US Toxics Release Inventory (TRI)	Canadian National Pollutant Release Inventory (NPRI)	Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC Section 5 of COA)	Status of Comparability*
Public Disclosure and	Confidentiality of Data	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,] <u>·</u>	
Access to data	Data on internet and in summary reports and other electronic materials.	Data on internet and in summary reports and other electronic materials.	Not available to public. Annual paper report summarizes number of reporters but not data reported.	Not comparable.
Confidentiality	For confidentiality claims, only the chemical name is kept confidential.	For confidentiality claims, the entire report and name of facility is kept confidential.	All data reported by facilities is kept confidential unless written permission to publish is granted by facility.	Not comparable.
Other Areas Not Curro	ently Under Active Consider	ation	I	1
Definition for reporting Ammonia	Anhydrous ammonia and 10% of aqueous ammonia.	Total ammonia.	Not reported.	Not comparable.
Number of employees	Reporting threshold is 10 or more employees.	Reporting threshold is 10 or more employees. Actual number reported.	No threshold based on number of employees. Actual number reported.	RETC reports number of employees so could pick comparable facilities.
On-site waste management data	Reported.	Not reported.	Not reported.	Not comparable.
Amount of use of chemical	Not reported.	Not reported.	Reported.	Not comparable.
Production/activity index	Index for current year reported.	Index reporting not mandatory.	Index for previous year and current year.	Not comparable TRI and NPRI since not mandatory. Can be used for analysis of source reduction activity.
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.	Federal permit and license numbers mandatory.	Not comparable. Useful for matching transfers to transfer sites.

* 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.

-			1	
CAS Number	Chemical	TRI	NPRI	RETC
50-00-0	Formaldehyde	•	•	•
50-29-3	DDT			•
50-32-8	Benzo(a)nvrene	*	•	
53 70 3	Dihonzy(a) hanthracono	4		
55 62 0	Ditrochoorin			
50-03-0		•		
56-23-5		•	•	•
56-55-3	Benzo(a)anthracene	*	•	
5/-/4-9	Chlordane	•		•
58-89-9	Lindane	•		•
58-90-2	2,3,4,6-Tetrachlorophenol			•
60-57-1	Dieldrin			•
62-53-3	Aniline	•	•	•
62-56-6	Thiourea	•	•	
62-75-9	N-Nitrosodimethylamine	•		•
64 19 6		•	•	-
64-10-0	Formit actu	•	•	
64-67-3	Dietuiji supinate			
64-70-0	letracycline hydrochoride	•	•	
67-56-1	[Methanol	•	•	
67-63-0	Isopropyl alcohol	•	•	
67-66-3	Chloroform	•	•	•
67-72-1	Hexachloroethane	•	•	•
70-30-4	Hexachlorophene	•	•	
71-36-3	n-Butyl alcohol	•	•	
71-43-2	Renzene	•	•	•
71-55-6	1 1 1 Trichloroethane	•	-	•
71-33-0	Endrin	-		
72-02-0	Lifuini Madeaurakian	-		
72-43-5	Internovychior	•		•
74-82-8	Methane			•
/4-83-9	Bromomethane	•	•	•
74-85-1	Ethylene	•	•	
74-87-3	Chloromethane	•	•	•
74-88-4	Methyl iodide	•	•	
74-90-8	Hvdrogen cvanide	•	•	
75-00-3	Chloroethane	•	•	
75-01-4	Vinvl chloride	•	•	•
75 05 8	Actonitrilo	•	•	
75-05-0	Actaldabuda			•
75-07-0	Dickleremethane	•		
75-09-2		•	•	•
/5-15-0		•	•	
/5-21-8	Ethylene oxide	•	•	
/5-25-2	Bromotorm	•		•
75-35-4	Vinylidene chloride	•	•	
75-44-5	Phosgene	•	•	
75-45-6	HCFC-22	•	•	•
75-56-9	Propylene oxide	•	•	
75-63-8	Halon 1301	•	•	•
75-65-0	tert-Butyl alcohol	•	•	
75 68 3		•	•	•
75-00-5		-		
75-09-4		-		
/0-/1-8		•	-	•
/5-/2-9		•	•	•
76-01-7	Pentachloroethane	•	•	
76-13-1	Freon 113	•		•
76-14-2	CFC-114	•	•	•
76-15-3	CFC-115	•	•	•
76-44-8	Heptachlor	•		•
77-47-4	Hexachlorocyclopentadiene	•	•	•
77-73-6	Dicyclopentadiene	•	•	
	· · · · · · · · · · · · · · · · · · ·			

ANNEX 2. LIST OF NPRI AND RETC CHEMICALS AND TRI MATCHED CHEMICALS FOR 2000 REPORTING YEAR

CAS Number	Chemical	TRI	NPRI	RETC
77-78-1	Dimethyl sulphate	•	•	
78-00-2	Tetrachy lead	**	•	
78-79-5	Isonrene		•	
78-83-1			•	
78-84-2	Isobutyraldebyde	•		
70-04-2	1 2 Dichloropropage	•		
70-07-3		•		
70-92-2	Set-Dulyi dicului	•	•	
70-93-3	INELITY EUTY RELOTE	•	•	-
79-00-5	1,1,2-Inchlorethalen	•	•	•
/9-01-6	Inchioroethylene	•	•	•
79-06-1	Acrylamide	•	•	•
/9-10-/		•	•	
/9-11-8	Chloroacetic acid	•	•	
/9-21-0	Peracetic acid	•	•	
/9-34-5	1,1,2,2- letrachloroethane	•	•	•
79-46-9	2-Nitropropane	•	•	•
80-05-7	p,p'-Isopropylidenediphenol	•	•	
80-15-9	Cumene hydroperoxide	•	•	
80-62-6	Methyl methacrylate	•	•	
81-81-2	Warfarin salts	•		•
81-88-9	C.I. Food Red 15	•	•	
84-66-2	Diethyl phthalate		•	
84-74-2	Dibutyl phthalate	•	•	•
85-01-8	Phenanthrene	•	•	
85-44-9	Phthalic anhydride	•	•	
85-68-7	Butyl benzyl phthalate		•	
86-30-6	N-Nitrosodiphenylamine	•	•	
87-68-3	Hexachloro-1.3-butadiene	•		•
87-86-5	Pentachlorophenol	•		•
88-06-2	2.4.6-Trichlorophenol	•		•
90-43-7	o-Phenylphenol	•	•	
90-94-8	Michler's ketone	•	•	
91-08-7	Toluene-2.6-diisocvanate	•	•	
91-20-3	Nanhthalene	•	•	
91-22-5	Quinoline	•	•	
91-59-8	beta-Naphthylamine	•		•
92-52-4	Binhenvl	•	•	•
92-67-1	4-Aminohinhenyl	•		•
92-87-5	Benzidine	•		•
92-93-3	A-Nitrohinhenyl	•		•
94-36-0	Benzovl neroxide	•	•	
94-59-7	Safrole	•	•	
94-75-7	2 A-D (acetic acid)	•		•
95_/18_7		•	•	-
95-50-1		•	•	•
05 63 6		•	•	-
05 80 7	2.4 Diamindationa			
95-00-7 95-95-4	2.4-Diaminoloudine	•	•	•
06 00 2	Sturano avida	•	•	-
30-03-3	Styletie uside Mathyl applata	•		
90-33-3 06 / E 7	Ethylong thigurgo			
30-43-7 00 00 0		•	-	
90-02-0	Lastanhanana			
90-00-Z	Accorptione Reprove ablastica	•	-	
90-08-4	Denzoyi cinonue	•		
98-95-3	INILIODERIZERE	•	•	
100-01-6	p-witroannine - Nikrophanal	•		
100-02-7	p-mitrophenoi	•	•	
100-41-4	IF I I WIDEI / PIP	•	•	

1004-25 Symme ••••••••••••••••••••••••••••••••••••	CAS Number	Chemical	TRI	NPRI	RETC
100-14-7 Bary chloride • 101-64-8 Bary chloridesignantine) • 101-76-8 Kathylenebis(chengissopante) • 103-72-10 p./Suthylenebis(chengissopante) • 103-72-10 p./Suthylenebis(chengissopante) • 104-64-10 Kengishenud • 104-67-7 p.Pichtonebarzene • 105-50-30 p.Phenylenebis(chengissopante) • 105-51-37 p.Pichtonebarzene • 105-51-38 Epichtonydrin • 105-51-39 Phenylenebis(chengissopante) • 105-51-39 Phenylenebis(chengissopante) • 105-51-39 Phenylenebis(chengissopante) • 106-524 Phonylenbis(chengissopante) • 107-51-3 Phenylenebis(chengissopante) • 107-524 Acrolin • • 107-51-4 Alpf chindre • • 107-51-5 Appargis lachoh • • 107-51-7 Phylenebis(chengissopante) • •	100-42-5	Styrene	•	•	•
1011-14 0 1011-14 0 1011-17-9 0 1012-79 0 1012-79 0 1013-231 812(-triphenely) adapta 1014-10-58 2(-) Norpiphenely altanal 1014-10-58 2(-) Norpiphenely altanal 1014-14-50 Polinhorbenzee 1015-14-57 Polinhorbenzee 1015-14-57 Polinhorbenzee 1015-157 Polinhorbenzee 1015-157 Polinhorbenzee 1015-157 Polinhorbenzee 1015-157 Polinhorbenzee 1015-151 Alyl chardene 1015-151 Alyl chardene 1017-151 Alyl chardene	100-44-7	Benzyl chloride	•	•	
101-68.8 Mithylendbis(baleris/scopantal_ 103-237.8 Bis/SciPerin/Rexy) Adjate 103-327.8 Bis/SciPerin/Rexy) Adjate International SciPerin/S	101-14-4	p.p'-Methylenebis(2-chloroaniline)	•	•	
101-77-9 0* Methylenedia anilae' • • 103-23 Big-C-struktered anilae' • • 104-43-33 2y-Nonylphenoyl ethanol • • 104-43-33 2y-Nonylphenoyl ethanol • • 106-44-5 p-Cressi • • • 106-45-7 p-Dehlenoberazee • • • 106-65-7 p-Dehlenoberazee • • • 106-65-7 p-Dehlenoberazee • • • 106-65-7 p-Dehlenoberazee • • • • 106-65-7 p-Dehlenoberazee • • • • 106-65-7 p-Dehlenoberazee • • • • • 107-65-8 Ally chloride • • • • • • • 107-15-7 Ally chloride • • • • • 107-15-7 Ally chloride • • • •	101-68-8	Methylenebis(phenylisocyanate)		•	
103:23:1 Bit2-ethylpenyl ethanol 104:40:5 Korylphenol 104:40:5 Korylphenol 105:44:67 p-Cresol 105:44:67 p-Dichlorobenzene 105:45:14 p-Denole 106:45:14 p-Denole 106:45:14 p-Denole 106:45:14 p-Denole 106:48:12 Butylene oxide 106:48:12 Butylene oxide 106:48:12 Butylene oxide 106:49:13 Butylene oxide 107:40:13 Butylene oxide 107:40:13 Butylene oxide 107:41:1 Butylene oxide 107:41:1 Butylene oxide 107:41:1 Butylene oxide 108:39:4 rude 108:39:4 rude 108:39:4 rude 108:39:4 rude 108:39:4 rude 109:39:7 Propargyl abold 109:39:7 Propargyl abold 109:39:7 Propargyl abold 109:39:7 Propargyl abold 109:49:7 Propargyl abold 109:49:7 Chyl	101-77-9	p.p'-Methylenedianiline	•	•	
1043-58 2.0-Monighteniony iterational ••••••••••••••••••••••••••••••••••••	103-23-1	Bis(2-ethylhexyl) adipate		•	
104-40-5 Monphised • 106-44-5 Cresh • 106-45-7 Dichlorobezzene • 106-51-8 Dichlorobezzene • 106-51-8 Dichlorobezzene • 106-51-8 Dichlorobezzene • 106-85-1 12-Suptenediamine • 106-85-1 12-Suptenediamine • 106-85-1 12-Suptenediamine • 106-85-1 12-Suptenediamine • 107-0-0 1-Suptachene • 107-0-1 Alfyr chorode • 107-0-5 Alfyr chorode • 107-0-5 Alfyr chorode • 107-15-7 Proparyl alcohol • 107-15-7 Proparyl alcohol • 107-15-7 Proparyl alcohol • 107-15-8 Myral cotol • 108-16-4 Mulpic birde • 108-16-5 Mulpic birde • 108-16-7 Chorobezene • 108-83-7	104-35-8	2-(p-Nonviphenoxy) ethanol		•	
106.44.5 p-Cressi • 106.50-3 p-Phenyleneliamine • 106.83-1 p-Qimmane • 106.83-1 p-Qimmane • 106.83-1 p-Qimmane • 106.83-1 p-Qimmane • 107.92-8 Aprolin • 107.92-8 Aprolin • 107.92-8 Aprolin • 107.94-6 1-Structure • 107.95-1 Ally choride • 107.95-2 Ally choride • 107.96-3 Ally choride • 107.91-4 Ethylographic and the structure • 107.91-7 Popargary al chorid • 107.91-8 Ally al chorid • • 107.91-7 Popargary al chorid • • 108.91-7 Popargary al chorid • • 108.92-7 Chorideszati • • 108.93-4 ind statt • • • 108.94-7 Chorideszati • • 108.95-7 Phonogary a	104-40-5	Nonvinhenol		•	
106:467 p-Bichlinobenzene • 106:514 p-Daimine • 106:514 p-Daimine • 106:838 Ejochlorohydrin • • 106:838 Ejochlorohydrin • • 107:042 Azorlein • • 107:040 I-Somo-2-chloroethane • • 107:047 Azorlein • • 107:047 I-Johoroethane • • 107:047 I-Johoroethane • • 107:047 I-Johoroethane • • 107:137 Roylonitrile • • 107:138 Azylonitrile • • 107:1397 Propargyl alcohol • • 108:054 Winglacetate • • 108:054 Information • • 108:054 Information • • 108:054 Information • • 108:054 Information	106-44-5		•	•	
106-39-3 -> Phenyleneliamine - 106-39-3 1-2-Butylene cuide - 106-39-4 1-2-Butylene cuide - 107-39-5 Explorinomphylini - 107-20-62 I-Strutatione - 107-20-75 Ally choirdie - 107-20-75 Ally choirdie - 107-20-75 Ally choirdie - 107-13-6 Ally choirdie - 107-13-7 Marylorinitie - - 107-13-7 Marylorinitie - - 107-13-7 Marylorinitie - - 107-13-7 Marylorinitie - - 107-14-7 Mirylorinitie - - 108-10-1 Methyl isobutyl ketone - - 108-10-1 Methyl isobutyl ketone - - 108-31-6 Maleia cambridie - - 108-32-7 Chorobezzene - - 108-35-2 Chorobezane - - <tr< td=""><td>106-46-7</td><td>In-Dichlorohenzene</td><td>•</td><td>•</td><td>•</td></tr<>	106-46-7	In-Dichlorohenzene	•	•	•
106-51-4 POurinore 106-83-8 12-8 Unive excite 106-83-8 Existical excite 107-92-8 Arcitein 107-91-8 Attributein 107-91-9 Arcitein 107-91-9 Arcitein 107-91-9 Arcitein 108-92-7 Chrotoenzene 108-93-7 Chrotoenzene 108-94-5 Chrotoenzene 108-95-2 Phenol 109-95-2 Artitypridine 109-95-2 Artitypridine 109-95-2 Chrotoe	106-50-3	n-Phenylenediamine	•	•	
106-88-7 12-Butylene cxide 106-88-8 Epichtonydrin 106-98-80 13-Butalene 107-04-1 1-Somo-2-chloroethane 107-04-1 1-Somo-2-chloroethane 107-04-1 1-Somo-2-chloroethane 107-04-1 1-Somo-2-chloroethane 107-04-1 1-Somo-2-chloroethane 107-04-1 1-Somo-2-chloroethane 107-05-1 Alyl chloroethane 107-13-1 Acriohitrile 107-13-1 Acriohitrile 107-14-1 Ethylene glycol 107-19-7 Propargyl alcohol 107-19-7 Propargyl alcohol 108-05-4 Viryl acetate 108-05-4 Viryl acetate 108-05-4 Viryl acetate 108-05-4 Maleic anhydride 108-05-4 Viryl acetate 108-05-4 Viryl acetate 108-05-4 Viryl acetate 108-05-5 Phenol 108-84-6 Achtonyethyla acetate 108-85-7 Phenol 109-65-8 2-Methylpridic 109-65-8 2-Methylpridine 109-65-8	106-51-4	In-Quinone	•	•	
106.838 ipichlorabytrin 106.838. ipichlorabytrin 107.428 karolein 107.428 karolein 107.428 karolein 107.428 karolein 107.428 karolein 107.421 karylonithie 107.422 karolein 107.428 Allyl atohol 107.131 karylonithie 107.145 May atohol 107.147 Hyd atohol 107.147 Hyd atohol 107.147 Ethylene glycol 108.404 watestat 108.4101 Wetny atostat 108.421 Moluene 108.433 Holuene 108.439 Charobezanol 109.462 Z-Methylyridine 109.462 Z-Methylyridine 109.463 Z-Methylyridine 100.464 Karoleine	106-88-7	1 2-Rutylene oxide	•	•	
100-90-0 12-building • • 107-02-1 12-building • • 107-04-1 1-Bromo-2-chloroethane • • 107-05-1 Alyl chloride • • 107-05-2 12-Duinoethane • • 107-05-1 Alyl chloride • • 107-13-1 Acyfonitrie • • 107-13-1 Acyfonitrie • • 107-13-1 Acyfonitrie • • 107-13-1 Propargyl alcohol • • 107-13-1 Ettylene glycol • • 108-54 Vinyl acetate • • 108-54 Melci anthydride • • 108-85 Toluene • • • 108-85 Toluene • • • 108-85 Toluene • • • 108-85 Phenol • • • 108-852 Phenol	106-89-8	Encellornbudrin	•	•	•
107-202 Acrieva • • • 107-24-0 1-Bromo-2-shloredhane • • • 107-13-1 Ally latorid • • • 107-13-2 12-Dichloredhane • • • 107-13-1 Acyfonitrile • • • 107-13-1 Acyfonitrile • • • 107-13-1 Acyfonitrile • • • 107-13-2 Ethylene glycol • • • 108-10-1 Methyl isobuly ledone • • • • 108-13-1 Methyl isobuly ledone • • • • • 108-14-1 Methyl isobuly ledone • • • • • • • 108-16-1 Methyl isobuly ledone • • • • • • • • • • • • • • • • • •	106-99-0	1 3-Rutadiana	•	•	•
107 -04.0 1.0 Formo-2-chloreethane • • 107 -05.1 Allyl chloride • • • 107 -05.2 1.2 - Dichloreethane • • • 107 -15.1 Acylonitrile • • • • 107 -15.4 Allyl achdu • • • • 107 -15.7 Propargyl alcohul • • • • 107 -15.7 Propargyl alcohul • • • • 108 -16.4 Winyl acetate • • • • • 108 -16.4 Maleic anhydride • • • • • 108 -33.4 mcresol • <	107-02-8		•	•	
107 0-05 1 Ally include 107 0-05 1 Ally include 107 0-05 1 Ally include 107 1-31 4 Acylonitile 108 1-31 Methyl isobuly ketone 108 3-34 mCresol 108 3-34 mCresol 108 3-34 mCresol	107-04-0	1_Bromo_2_chloroethane	-	•	-
107-06-2 12-Dichlorosethane • 107-18-2 Arylonitrie • 107-18-5 Alyl achol • 107-18-6 Alyl achol • 107-18-7 Propargyl achol • 107-19-7 Propargyl achol • 107-11 Ethylene glycol • 108-05-4 Vinyl acetate • 108-05-4 Vinyl acetate • 108-31-6 Maleic anbytride • 108-31-6 Maleic anbytride • 108-33-4 roresol • 108-33-5 Chlorobenzene • • 108-39-6 Cyclonexanol • • 109-36-8 2-Methosynthanol • • 110-43-6 2-Methosynthanol • • 110-54-7 n-Hexane • • 110-54-7 <td>107-04-0</td> <td></td> <td>•</td> <td>•</td> <td></td>	107-04-0		•	•	
107 00-2 142 - Ortifie 107 1-33 Arylonitrie 107 1-34 Alyl alcohol 107 1-37 Proparyl alcohol 107 -137 Ethylene glycol 108 -101 Methyl sobulol 108 -101 Methyl sobulol 108 -101 Methyl sobulol 108 -101 Methyl sobulol 108 -31-6 Maleic anhydride 108 -33-6 Maleic anhydride 108 -33-6 Maleic anhydride 108 -33-6 Maleic anhydride 108 -33-7 Fhenol 108 -34-7 Methyl sobulol 108 -35-2 Phenol 108 -36-2 Althopydtiane 108 -36-2 Althopydtiane 109 -06-8 2-Methylydiane 109 -06-8 2-Methylydiane 109 -06-4 2-Methopydtianol 110 -34-5 2-Khowyethyl acetate 110 -34-6 2-Methopydtianol 110 -34-7 N-Hexane 110 -34-7 N-Hexane 110 -34-7 N-Hexane 110 -34-7 Piperidine 111 -34-7 Althylacoho	107-06-2	1 2-Dichloroethane	•	•	•
107-13-6 Allylatochol • • 107-13-7 Propargylatochol • • 107-13-7 Propargylatochol • • 108-05-4 Vinylacctate • • 108-10-1 Methylisobutyl ketone • • 108-31-6 Maleic anhydride • • 108-33-4 no-Cresol • • 108-39-7 Chlorobenzene • • 108-39-7 Chlorobenzene • • 108-39-7 Chlorobenzene • • 108-39-7 Chlorobenzene • • 109-68 2-Methoygethanol • • 110-49-6 2-Methoygethacetate • • 110-54-5 2-Ethosyethanol • • 110-64-6 2-Methosylphylacetate • • 110-54-5 2-Ethosyethanol • • 110-64-6 2-Methosylphylacetate • • 110-64-7 2-Ethosystelylphylinkate • • 1110-54-7 2-Ethosylphylinhinkate	107 13 1	Academic	•		•
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100-35-0 Optimization • • 1019-05-8 2-Methoyyethyl acetate • • 109-86-4 2-Methoyyethyl acetate • • 1010-48-5 2-Methoyyethyl acetate • • 110-45-6 2-Methoyyethyl acetate • • 110-45-7 n-Hexane • • 110-82-7 Cyclohexane • • 110-88-1 Pyridine • • 110-88-1 Pyridine • • 110-88-1 Pyridine • • 110-88-1 Pyridine • • 111-15-9 2-Ethoxyethyl acetate • • 111-15-9 2-Ethoxyethyl acetate • • 111-76-2 2-Butoxyethanol • • 111-76-2 2-Butoxyethanol • • 111-76-2 2-Butoxyethanol • • 115-07-1 Propylene • • • 115-28-6 Chlorendic acid • • • 117-84-0 Di-n-ocyl phthalate	108-30-7	Cinicipation	•	•	•
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110-00-1 Fylnine 110-894 Piperidine 111-15-9 2-Ethoxyethyl acetate 111-42-2 Diethanolamine 111-42-2 Diethanolamine 111-76-2 2-Butoxyethanol 111-76-2 2-Butoxyethanol 115-70-1 Propylene 6 Chlorencic acid 115-28-6 Chlorencic acid 115-29-7 Endosulfan 117-81-7 Bis(2-ethylhexyl) phthalate 117-81-7 Bis(2-ethylhexyl) phthalate 117-84-0 Di-n-octyl phthalate 118-74-1 Hexachlorobenzene 120-12-7 Anthracene 120-12-7 Anthracene 120-88-1 Isosafrole 120-88-2 1,2,4-Trichlorobenzene 120-82-2 1,2,4-Dirichlorobenzene 120-83-2 2,4-Dichlorobenzene 120-82-2 2,4-Dinitrothurene	110-02-7	Duriding	•	•	•
110-03-412-Ethoxyethyl acetate111-42-2Diethanolamine•111-42-2Diethanolamine•111-622-Butoxyethanol•115-07-1Propylene•115-07-1Propylene•115-28-6Chlorendic acid•115-28-7Endosulfan•117-81-7Bis(2-ethylhexyl) phthalate•117-84-0Di-n-octyl phthalate•118-74-1Hexachlorobenzene•120-12-7Anthracene•120-12-7Isosafrole•120-88-1Isosafrole•120-88-11,2,4-Trichlorobenzene•120-82-11,2,4-Trichlorobenzene•120-82-22,4-Dichlorophenol•120-82-22,4-Dichlorophenol•120-82-21,2,4-Trichlorobenzene•120-82-22,4-Dichlorophenol•120-82-21,2,4-Trichlorobenzene•120-82-22,4-Dichlorophenol•120-12-71,2,4-Trichlorobenzene•120-82-21,2,4-Trichlorobenzene•120-82-22,4-Dichlorophenol•120-82-22,4-Dichlorophenol•120-12-71,2,4-Trichlorobenzene•120-82-21,2,4-Trichlorobenzene•120-82-22,4-Dichlorophenol•120-12-24,4-Dinitrotoluene•120-12-12-124,4-Dinitrotoluene•120-12-124,4-Dinitrotoluene•120-12-124,4-Dinitrotoluene <td>110-00-1</td> <td>Pingriding</td> <td>•</td> <td></td> <td>•</td>	110-00-1	Pingriding	•		•
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1117-07-1 Propylene • • 115-07-1 Propylene • • 115-28-6 Chlorendic acid • • 115-29-7 Endosulfan • • 117-81-7 Bis(2-ethylhexyl) phthalate • • 117-84-0 Di-n-octyl phthalate • • 118-74-1 Hexachlorobenzene • • 120-12-7 Anthracene • • 120-58-1 Isosafrole • • 120-80-9 Catechol • • 120-82-1 1,2,4-Trichlorobenzene • • 120-83-2 2,4-Dichlorobenzene • • 120-12-7 Anthracene • • 120-82-1 1,2,4-Trichlorobenzene • • 120-82-2 2,4-Dinitrothurene • • •	111-42-2	2 Rutowathanol	•	•	
115-02-1 Inbyrente 115-29-7 Endosulfan 115-29-7 Endosulfan 117-81-7 Bis(2-ethylhexyl) phthalate 117-84-0 Di-n-octyl phthalate 117-84-0 Lin-octyl phthalate 118-74-1 Hexachlorobenzene 120-12-7 Anthracene 120-58-1 Isosafrole 120-80-9 Catechol 120-82-1 1,2,4-Trichlorobenzene 120-83-2 2,4-Dichlorobenzene 120-12-2 Aphinitrotaluene	111-70-2		-		
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117-61-7 Dist2-ethylicity) phthatate 117-84-0 Di-n-octyl phthalate 118-74-1 Hexachlorobenzene 120-12-7 Anthracene 120-58-1 Isosafrole 120-80-9 Catechol 120-82-1 1,2,4-Trichlorobenzene 120-82-2 2,4-Dichlorophenzol 120-83-2 2,4-Dichlorophenzol 121-14-2 2 4-Dipitrotoluene	113-23-7	Liuusuiidii Dis(2 athulhavul) ahthalata	•	•	•
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120-02-1 12,4-10thTorophenol 120-83-2 2,4-DichTorophenol 121-14-2 2 4-Dipitrotoluene	120-00-5	1 2 A Trichlorobenzene	•	•	•
121-14-2 2 4-Dinitrataluene	120-02-1	1,2,4- II to III to Delizente	•		-
	120-03-2	2.4-Dinitrotoluene	•	•	•

CAS Number	Chemical	TRI	NPRI	RETC
121-44-8	Triethylamine	•	•	
121-69-7	N.N-Dimethylaniline	•	•	
122-39-4	Diphenylamine	•	•	
123-31-9	Hydroguinone	•	•	
123-38-6	Propionaldehyde	•	•	
123-63-7	Paraldehvde	•	•	
123-72-8	Butyraldehyde	•	•	
123-91-1	1.4-Dioxane	•	•	•
124-38-9	Carbon dioxide			•
124-40-3	Dimethylamine	•	•	
127-18-4	Tetrachloroethylene	•	•	
128-37-0	2.6-Di-t-butyl-4-methylphenol		•	
129-00-0	Pyrene		•	
131-11-3	Dimethyl phthalate	•	•	
139-13-9	Nitrilotriacetic acid	•	•	
140-66-9	4-tert-Octylphenol		•	
140-88-5	Ethyl acrylate	•	•	
141-32-2	Butyl acrylate	•	•	
149-30-4	2-Mercaptobenzothiazole	•	•	
156-62-7	Calcium cvanamide	•	•	
189-55-9	Dibenzo(a.i)pyrene	*	•	
191-24-2	Benzo(g h i)nervlene	*	•	
192-97-2	Benzo(e)nyrene		•	
193-39-5	Indeno(1,2,3-c,d)pyrene	*	•	
194-59-2	7H-Dihenzo(c,g)carhazole	*	•	
198-55-0	Pervlene		•	
205-82-3	Benzo(i)fluoranthene	*	•	
205-99-2	Benzo(h)fluoranthene	*	•	
206-44-0	Fluoranthene		•	
207-08-9	Benzo(k)fluoranthene	*	•	
218-01-9	Benzo(a)nhenanthrene	*	•	
224-42-0	Dibenz(a i)acridine	*	•	
298-00-0	Methyl narathion	•		•
302-01-2	Hydrazine	•	•	•
306-83-2	2 2-Dichloro-1 1 1-trifluoroethane (HCEC-123)	•		•
309-00-2	Aldrin	•		•
353-59-3	Halon 1211	•	•	•
422-56-0	3.3-Dichloro-1.1.1.2.2-pentafluoropropane (HCFC-225ca)	•		•
507-55-1	1.3-Dichloro-1.1.2.2.3-pentafluoropropane (HCFC-225cb)	•		•
534-52-1	4.6-Dinitro-o-cresol	•	•	•
541-41-3	Ethyl chloroformate	•	•	
542-76-7	3-Chloropropionitrile	•	•	
542-88-1	Bis(chloromethyl) ether	•		•
554-13-2	Lithium carbonate	•	•	
563-47-3	3-Chloro-2-methyl-1-propene	•	•	
569-64-2	C.I. Basic Green 4	•	•	
584-84-9	Toluene-2.4-diisocvanate	•	•	
606-20-2	2,6-Dinitrotoluene	•	•	
612-83-9	3.3'-Dichlorobenzidine dihydrochloride	•	•	
630-20-6	1.1.1.2-Tetrachloroethane	•	•	
842-07-9	C.I. Solvent Yellow	•	•	
872-50-4	N-Methyl-2-pyrrolidone	•	•	
924-42-5	N-Methylolacrylamide	•	•	
989-38-8	C.I. Basic Red 1	•	•	

CAS Number	Chemical	TRI	NPRI	RETC
1163-19-5	Decabromodiphenyl oxide	•	•	
1300-71-6	Dimethyl phenol		•	
1313-27-5	Molybdenum trioxide	•	•	
1314-20-1	Thorium dioxide	•	•	
1319-77-3	Cresol	•	•	
1332-21-4	Asbestos	•	•	•
1336-36-3	Polychlorinated biphenyls (PCBs)	•		•
1344-28-1	Aluminum oxide	•	•	
1634-04-4	Methyl tert-butyl ether	•	•	
1717-00-6	HCFC-141b	•	•	•
2385-85-5	Mirex			•
2551-62-4	Sulfur hexafluoride		•	•
2832-40-8	C.I. Disperse Yellow 3	•	•	
2837-89-0	2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	•		•
3118-97-6	C.I. Solvent Orange 7	•	•	
4098-71-9	Isophorone diisocyanate	***	•	
4170-30-3	Crotonaldehyde	•	•	
4680-78-8	C.I. Acid Green 3	•	•	
5124-30-1	1,1-Methylenebis(4-isocyanatocyclohexane)		•	
7311-27-5	2-(2-(2-(2-(p-Nonylphenoxy) ethoxy) ethanol		•	
7429-90-5	Aluminum	•	•	
7440-62-2	Vanadium	•	•	
7550-45-0	Titanium tetrachloride	•	•	
7632-00-0	Sodium nitrite	•	•	
7637-07-2	Boron trifluoride	•	•	
7647-01-0	Hydrochloric acid	•	•	
7664-38-2	Phosphoric acid		•	
7664-39-3	Hydrogen fluoride	•	•	
7664-93-9	Sulfuric acid	•	•	
7681-49-4	Sodium fluoride		•	
7697-37-2	Nitric acid	•	•	
7723-14-0	Phosphorus	•	•	
7726-95-6	Bromine	•	•	
7758-01-2	Potassium bromate	•	•	
7782-41-4	Fluorine	•	•	
7782-50-5	Chlorine	•	•	
7783-06-4	Hydrogen sulfide	****	•	•
7789-75-5	Calcium fluoride		•	
8001-35-2	Toxaphene	•		•
9016-45-9	Nonylphenol polyethylene glycol ether		•	
9016-87-9	Polymeric diphenylmethane diisocyanate	***	•	
10049-04-4	Chlorine dioxide	•	•	•
10102-43-9	Nitric oxides			•
10102-44-0	Nitrogen dioxide			•
13463-40-6	Iron pentacarbonyl	•	•	
15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate	***	•	
16938-22-0	2,2,4-Trimethylhexamethylene diisocyanate	***	•	
20427-84-3	2-(2-(p-Nonylphenoxy)ethoxy) ethanol		•	
25154-52-3	n-Nonylphenol		•	
25321-14-6	Dinitrotoluene	•	•	
26027-38-3	p-Nonylphenol polyethylene glycol ether		•	
26471-62-5	Toluenediisocyanate	•	•	•
27177-05-5	Nonylphenol hepta(oxyethylene) ethanol		•	
27177-08-8	Nonylphenol nona(oxyethylene) ethanol		•	

CAS Number	Chemical	TRI	NPRI	RETC
27986-36-3	Nonylphenoxy ethanol		•	
28407-37-6	C.I. Direct Blue 218	•	•	
28679-13-2	Ethoxynonyl benzene		•	
34077-87-7	HCFC-123 and all isomers	•	•	
37251-69-7	Oxirane, methyl-, polymer with oxirane, mono(nonylphenyl)ether		•	
41834-16-6	HCFC-122 and all isomers		•	
63938-10-3	HCFC 124 and all isomers	•	•	
68920-70-7	Alkanes, C6-18, chloro		•	
84852-15-3	Nonylphenol, industrial		•	
85535-84-8	Alkanes, C10-13, chloro	•	•	
	Ammonia (total)	•	•	
	Antimony and compounds	•	•	
	Arsenic and compounds	•	•	•
	Cadmium and compounds	•	•	•
	Chromium and compounds	•	•	•
	Cobalt and compounds	•	•	
	Copper and compounds	•	•	
	Cyanides	•	•	•
	Hydrobromofluororcarbons	•		•
	Hydrofluororcarbons	•		•
	Lead and compounds	•	•	•
	Manganese and compounds	•	•	
	Mercury and compounds	•	•	•
	Nickel and compounds	•	•	•
	Nitrate ion	•	•	
	Perfluorocarbons	•		•
	Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans	•	•	•
	Selenium and compounds	•	•	•
	Silver and compounds	•	•	
	Xylenes (mixed isomers)	•	•	
	Zinc and compounds	•	•	

Note: TRI has over 300 additional chemicals. Only those also on the NPRI or RETC list are included here. * Part of polycyclic aromatic compounds (PACs/PAHs) group *** Part of lead and compounds group **** Part of diisocyanates group **** TRI reporting stayed (facilities not currently required to report)

ANNEX 3. PBT AND OTHER CHEMICALS ADDED TO OR CHANGED IN NPRI AND/OR TRI FOR REPORTING YEAR 2000

		0	n PR List	TR		Threshold		
					NPRI	TRI	RETC	
CAS Number	Chemical	NPRI	TRI	RETC	(MOF	is manufactured, processed or otherwise	used)	Comments on Thresholds
107-02-8	Acrolein	•	•	•	10,000 kg MOP	11,340 kg MOP	100 kg released on-site	RETC threshold not match
	Mercury (and its compounds)	•	•	•	5 kg MOP	4.5 kg MOP	1 kg released on-site	RETC threshold not match
118-74-1	Hexachlorobenzene	•	•	•	0 kg, but only certain industrial processes	4.5 kg MOP	1,000 kg released on-site	NPRI/TRI/RETC thresholds not match
	Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans	•	•	•	0 kg (TEQ reported, only certain industrial processes)	0.1 gram (amounts reported)	0 kg (released on-site)	Thresholds and reporting definitions not match
	Xylene (and pure isomers)	•	•		10,000 kg MOP	11,340 kg MOP		
191-24-2	Benzo(g,h,i)perylene	•	•		50 kg released or transferred (part of PAH group threshold)	4.5 kg MOP		NPRI/TRI but thresholds not match
85-01-8	Phenanthrene	•	•		50 kg released or transferred (part of PAH group threshold)	11,340 kg MOP		NPRI/TRI but thresholds not match
	Polycyclic aromatic compounds (PAC/PAHs)	•	•		50 kg released or transferred (total for all PAHs)	45.4 kg MOP (total for all PAHs)		TRI reports PAHs as a group and NPRI does not. See Annex 5.
9016-87-9	Polymeric diphenylmethane diisocyanate	•	•		10,000 kg MOP	11,340 kg MOP		Reported as part of Diisocyanate group in TRI. See Annex 4.
140-66-9	4-tert-Octylphenol	•			10,000 kg MOP			
37251-69-7	Oxirane, methyl-, polymer with oxirane, mono(nonylphenyl)ether	•			10,000 kg MOP			
198-55-0	Perylene	•			50 kg released or transferred (part of PAH group threshold)			
129-00-0	Pyrene	•			50 kg released or transferred (part of PAH group threshold)			
7440-62-2	Vanadium (except when contained in alloy)	•	•		10,000 kg MOP	11,340 kg MOP		
	Vanadium compounds	•	•		10,000 kg MOP	11,340 kg MOP		
309-00-2	Aldrin		•	•		45.4 kg MOP	100 kg released on-site	TRI/RETC thresholds not match
57-74-9	Chlordane		•	•		4.5 kg MOP	100 kg released on-site	TRI/RETC thresholds not match

		On PRTR List						
					NPRI	TRI	RETC	
CAS Number	Chemical	NPRI	TRI	RETC	(MO	P is manufactured, processed or otherwise	used)	Comments on Thresholds
76-44-8	Heptachlor		•	•		4.5 kg MOP	100 kg released on-site	TRI/RETC thresholds not match
465-73-6	Isodrin		•			4.5 kg MOP		
72-43-5	Methoxychlor		•			45.4 kg MOP		
29082-74-4	Octachlorostyrene		•			4.5 kg MOP		
40487-42-1	Pendimethalin		•			45.4 kg MOP		
608-93-5	Pentachlorobenzene		•			4.5 kg MOP		
1336-36-3	Polychlorinated biphenyl (PCBs)		•			4.5 kg MOP		
79-94-7	Tetrabromobisphenol A		•			45.4 kg MOP		
8001-35-2	Toxaphene		•			4.5 kg MOP		
1582-09-8	Trifluralin		•			45.4 kg MOP		

ANNEX 4. DIISOCYANATES REPORTING

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

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.

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

ANNEX 5. POLYCYCLIC AROMATIC COMPOUNDS (PACS/PAHS) REPORTED AT LOWER THRESHOLDS

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 6. INDUSTRY SPECIFIC DATA AVAILABLE ON CRITERIA AIR CONTAMINANTS

Chemical	CANADA	US	MEXICO COA SECTION 2	ALL THREE COUNTRIES
Carbon monoxide	•	•	voluntary	
Carbon dioxide			voluntary	
Lead	•*	•	•*	
Nitrogen dioxide/Nitrogen oxides	•	•	•	•
Particulates	•	•	•	•
PM 10	•	•		
PM 2.5	•	•		
Sulfur dioxide/Sulfur oxides	•	•	•	•
Volatile organic compounds	•	•	•	•
Unburned hydrocarbons			voluntary	

Note: Criteria air contaminants are currently not reported to NPRI or TRI. They have been added to NPRI for 2002 reporting year. 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.

ANNEX 7. POLLUTION PREVENTION ACTIVITIES (CALLED SOURCE REDUCTION ACTIVITIES IN TRI)

	NPRI Categories			
А	Materials or feedstock substitution			
	Increased purity of raw materials	Correspondi	ig Category	
	Substituted raw materials	NPRI	RETC	
_	Other (specify)		COP	Changes in operating practices
В	Product design or reformulation		TS	Changes in in situ treatment
	Changed product specifications	F	CI	Changes in inventory control
	Modified design or composition	D	PDF	Changes in spill and leakage prevention
	Modified packaging	Ā	CMP	Changes in inputs
	Other (specify)	В	CP	Product changes
С	Equipment or process modifications	С	MPP	Changes in the production process
	Modified equipment, layout or piping	C	CPL	Changes in cleaning practices
	Used different process catalyst			5 61
	Instituted better controls on operating bulk containers			
	Changed from sman volume containers to bulk containers			
	Modified stripping/cleaning devices			
	Unaliged to aqueous cleaners			
	Improved rinse equipment design			
	Improved rinse equipment accign			
	Modified spray systems or equipment			
	Improved application techniques			
	Changed from spray to other system			
	Other (specify)			
D	Spill and leak prevention			
	Improved storage or stacking procedures			
	Improved procedures for loading, unloading and transfer operations			
	Installed overflow alarms or automatic shut-off valves			
	Installed vapour recovery systems			
	Implemented inspection or monitoring program of potential spill or leak so	urces		
	Modified containment procedures			
	Improved draining procedures			
r	Other (specify)			
E	UII-Site re-use, recycling or recovery			
	Other (creatify)			
F	Improved inventory management or nurchasing techniques			
I	Instituted procedures to ensure that materials do not stay in inventory bevo	and shelf-life		
	Initiated testing of outdated material			
	Fliminated shelf-life requirements for stable materials			
	Instituted better labelling procedures			
	Instituted clearinghouse to exchange materials			
Not on TRI	Instituted improved purchasing procedures			
	Other (specify)			
G	Training or Good operating practices			
	Improved maintenance scheduling, record keeping or procedures			
	Changed production schedule to minimize equipment and feedstock chang	eovers		
Not on TRI	Iraining related to pollution prevention			
	Other (specify)			

Corresponding Category

NPRI	TRI
	Good Operating Practices
G	W13 Improved maintenance scheduling recordkeeping or procedures
Ğ	W14 Changed production schedule to minimize equipment and feedstock changeovers
u u	W19 Other changes in operating practices
	Inventory Control
F	W21 Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life
F	W22 Began to test outdated material continue to use if still effective
F	W23 Fliminated shelf-life requirements for stable materials
F	W24 Instituted hetter labeling noncedures
F	W25 Instituted clearinghouse to exchange materials that would otherwise be discarded
F	W29 Other changes in inventory control
	Soil and leak Prevention
D	W31 Improved storage or stacking procedures
Ď	M32 Improved procedures for loading unloading and transfer operations
D	M32 Installed overflow alarms or automatic solutions
D	W35 Installed vanor recovery systems
D	W36 Implemented inspection or monitoring program of potential spill or leak sources
D	W30 There enill and leak revention
D	Raw Material Modifications
Δ	W/1 Increased nurth of raw materials
Δ	W12 Substituted raw materials
Δ	WAQ Other raw material modifications
F	
ſ	MS1 Instituted recipulation within a process
0 C	W51 Modified equipment layout or piping
0 C	MS2 lise of a different mores evaluet
C	W54 Instituted better controls on poerating bulk containers to minimize discarding of empty containers
C	W55 Changed from small value containers to hulk containers to minimize discarding of empty containers
0	Wise Other process and if instance of the original is to the original of the manual of the original of the ori
	Not out process incurrent of the second seco
C	W59 Modified stripping/cleaning equipment
Not on NPRI	W60 Channed to mechanical string /clapping devices (from solvents or other materials)
Δ	W61 Changed to aqueous cleaners (from solvents or other materials)
D	W63 Modified containeent procedures for cleaning units
Ď	W6A Improved draining procedures
Not on NPRI	W65 Reference and a scalar to reduce drag out
C	W66 Modified or installed rinse systems
Č	W67 Improved rinse equipment design
Č	W68 Improved rinse equipment operation
Č	W71 Other cleaning and degreasing modifications
	Surface Prenaration and Finishing
С	W72 Modified spray systems or equipment
Not on NPRI	W73 Substituted coating materials used
С	W74 Improved application techniques
Č	W75 Chapped from soray to other system
č	W78 Other surface menaration and finishing modifications
0	Product Modifications
B	W81 Changed product specifications
R	W82 Modified design or composition
R	W83 Modified packaging
B	W89 Other product modifications

ANNEX 8. PROMOTING COMPARABILITY OF POLLUTANT RELEASE AND TRANSFER REGISTERS (PRTRS)

Pittsburgh, 12 June 1997

COUNCIL RESOLUTION 97-04

Promoting Comparability of Pollutant Release and Transfer Registers (PRTRs)

THE COUNCIL:

REAFFIRMING the importance of the objectives of the North American Agreement on Environmental Cooperation (NAAEC);

DETERMINED to take action pursuant to Article 10(2)(a) of the NAAEC which provides that the Council may consider and develop recommendations regarding "comparability of techniques and methodologies for data gathering and analysis, data management and electronic data communications on matters covered by this Agreement";

TAKING INTO ACCOUNT Chapter 19 of Agenda 21 which states, *inter alia*, that governments and relevant international organizations with the cooperation of industry should "improve databases and information systems on toxic chemicals" and that "the broadest possible awareness of chemical risks is a prerequisite for achieving chemical safety";

ALSO TAKING INTO ACCOUNT the Recommendation of the Council of the Organization for Economic Cooperation and Development (OECD) of 20 February 1996 which states that "[m]ember countries should consider sharing periodically the results of the implementation of such systems among themselves and with non-member countries with particular emphasis upon sharing of data from border areas among relevant neighboring countries", and that member countries in establishing PRTR systems should take into account the set of principles contained in the Annex to the OECD Recommendation, including that "PRTR systems should allow as far as possible comparison and cooperation with other national PRTR systems and possible harmonization with similar international databases";

BUILDING UPON activities taken pursuant to existing agreements by focusing on the comparability of methodologies for data collection and analysis;

CONVINCED that PRTRs provide valuable information to assist in environmental risk reduction, environmental decision making and sound management of chemicals and allow for public access to environmental information;

AFFIRMING that a higher degree of data comparability is necessary for a more accurate representation of North American environmental quality;

RECOGNIZING that each national program has developed a unique process for the collection and modification of environmental data sets;

CONVINCED of the importance of reliable and relevant environmental data to assist the Parties and others in taking informed and responsible actions pursuant to Article 10(2)(a) of the NAAEC and other bilateral or multilateral agreements;

HEREBY:

AGREES to work toward adopting more comparable PRTRs;

FURTHER AGREES to produce an annual Commission for Environmental Cooperation (CEC) report analyzing publicly available information from North American PRTRs which will be produced by 31 December of each year (analyzing data from two years prior) provided the CEC Secretariat receives the PRTR data by 1 April of each year;

DECIDES to collaborate in the development of an Internet site to present the matched subset of data from each of the three national PRTRs and provide information on the degree of comparability of the North American PRTRs and other information as agreed upon by the Council by June 1998;

AGREES to promote regional cooperation among the Parties to enhance PRTRs in North America, to improve the usefulness of the information by allowing better comparison and use of the data through focusing on the following PRTR issues:

- what is reported,
- who is required to report,
- reporting guidance, including
 - definitions and nomenclature
 - data estimation techniques
- data dissemination and user support,
- information on releases from non-point sources, as mutually agreed upon, and
- other issues as mutually agreed upon.

DIRECTS the Secretariat to work with the Parties to implement the decisions and commitments set forth in this resolution, including:

- a_ developing an implementation plan to enhance the comparability of North American PRTRs by 31 March 1998, including short-term and longterm goals;
- b_ revising and assessing progress in enhancing the comparability of North American PRTRs annually, beginning 31 March 1998.
- c_ developing recommendations to improve dissemination of PRTR data, including facilitation of user access to, and comprehension of, PRTR data and associated relevant information, as well as measures relating to joint approaches to technical cooperation and information sharing;
- d_ noting which industrial sectors, within the matched subset of PRTR data, have significant differences in the amounts reported between the national PRTR programs, and examining possible reasons for these differences;
- e_ developing recommendations for special focus reports to highlight areas that would benefit from further comparability, as may be agreed upon by the Council;
- f_ encouraging complementary national approaches and timetables to enhance PRTRs in a manner that respects the different economic, political and regulatory circumstances of the Parties;
- g_ encouraging and providing for meaningful public and governmental participation, including participation by non-governmental organizations, business and industry, provincial, state, and municipal governments, academia, and technical and policy experts in developing its recommendations for enhanced comparability; and
- h_ coordinating activities, avoiding the duplication of effort, and where possible, using the expertise of existing workgroups and other organizations, e.g., UNITAR (United Nations Institute for Training and Research), OECD, and the *PRTR Coordination Group* (as recommended under *International Forum for Chemical Safety*).

APPROVED BY THE COUNCIL

Fred Hansen Government of the United States of America

Gabriel Quadri de la Torre Government of the United Mexican States

John A. Fraser Government of Canada

ANNEX 9. POLLUTANT RELEASE AND TRANSFER REGISTERS

Dallas, 13 June 2000

COUNCIL RESOLUTION: 00-07

Pollutant Release and Transfer Registers

THE COUNCIL:

RECALLING the importance of the objectives of the North American Agreement on Environmental Cooperation (NAAEC) and the commitments set forth in Council Resolution 97-04 on Promoting Comparability of Pollutant Release and Transfer Registers;

RECOGNIZING the importance of preventing and reducing pollution from industrial and other sources in protecting the environment and the health of present and future generations;

CONVINCED of the value of pollutant release and transfer registers (PRTRs) as tools for the sound management of chemicals, for encouraging improvements in environmental performance, for providing the public with access to information on pollutants released and transferred into and through their communities, and for use by governments in tracking trends, demonstrating progress in pollution reduction, setting priorities and evaluating progress achieved through environmental policies and programs;

NOTING the opportunities for using PRTR data, when combined with health, environmental, demographic, economic and/or other types of relevant information, for gaining a better understanding of potential problems, identifying 'hotspots,' and setting environmental management priorities;

ALSO RECALLING the principles and commitments agreed to by the Parties in adopting Agenda 21 at the 1992 United Nations Conference on Environment and Development, in particular, the provisions calling for the development of emissions inventories and the development of programs to promote the public's and workers' right-to-know;

TAKING INTO ACCOUNT the principles outlined in a document of the Organization for Economic Cooperation and Development (OECD) entitled "Guidance Manual for Governments," and recalling the 1996 OECD Council Recommendation which calls upon member countries to establish, implement and make public national PRTRs and promote comparability among national PRTRs and sharing of PRTR data between neighboring countries;

ALSO NOTING the growing international interest in PRTRs, access to information and public participation in environmental decision-making; and

CONSIDERING the opportunities for North America to serve as a global leader in the development and use of PRTRs nationally and regionally;

HEREBY:

RECOGNIZES that there is a set of basic elements central to the effectiveness of PRTR systems, which includes reporting on individual substances that is also facility-specific, multimedia (i.e., releases to air, water, land and underground injection, and transfers from one location to another for further management), mandatory, periodic (e.g., annually), and which allows for public disclosure of reported data on a facility and chemical-specific basis;

FURTHER RECOGNIZES that the basic elements of national PRTRs also include: standardized database structures to facilitate electronic reporting, collection, analysis and dissemination; limiting data confidentiality and indicating what is held confidential; a comprehensive scope; and a mechanism for public feedback for continual improvement of the system;

RECOGNIZES AND ACCEPTS that the responsibility for designing and implementing national PRTRs rests with each individual country of North America and that the establishment of such basic elements depends on the environmental policies and capacities of each country;

AGREES to continue their individual and collective efforts to promote PRTRs, including public access to and use of PRTR data, domestically, regionally and internationally;

REAFFIRMS its commitment to publish an annual report on pollutant releases and transfers in North America (the *Taking Stock* report) based on information collected through the national PRTR programs; and

COMMITS to a continued exchange of information and expertise of relevance to the effective implementation and further development of the respective national PRTR programs including, *inter alia*, guidance on estimation techniques and lists of substances and reporting thresholds, with a view toward promoting cooperation and enhancing comparability among the North America PRTR systems.

APPROVED BY THE COUNCIL

David Anderson Government of Canada

Carol M. Browner Government of the United States of America

Julia Carabias Lillo Government of the United Mexican States