

**Commission for Environmental Cooperation of North America (CEC)**

***Meeting of the Consultative Group for the North American Pollutant  
Release and Transfer Register (PRTR) Project***

Cuernavaca, Mexico, 16-17 October 2002

**Consultations for the *Taking Stock 2001* Report  
on North American Pollutant Releases and Transfers**



**Discussion Paper**

## I. Introduction

This paper has been prepared as a starting point for discussion during the consultations for the *Taking Stock 2001* report on North American pollutant releases and transfers. The Commission for Environmental Cooperation of North America (CEC) is holding a public meeting in Cuernavaca, Mexico on 16-17 October 2002 as a forum for exchanging ideas and obtaining stakeholder input. The aim of this paper is to introduce a range of issues, with relevant background information for each, as a basis for the discussions on the *Taking Stock 2001* report, which will take place on Wednesday afternoon, 16 October. Another background paper has been prepared for the Joint Meeting of the Sound Management of Chemicals (SMOC) Program and the Consultative Group for the North American Pollutant Releases and Transfer Register (PRTR) Project, which will take place on Thursday, 17 October, 2002.

If you are not able to attend the meeting but would like to provide input, please send your written comments to Erica Phipps at CEC in advance of the meeting, if possible, or by **18 November 2002**. Following the public meeting and receipt of written comments, CEC will prepare a Response to Comments document that will summarize the comments received and outline the proposed approach for development of the *Taking Stock 2001* report.

The *Taking Stock* report is an annual report providing information on pollutants in North America based on data collected through the national PRTRs. These registers are designed to track the quantities of certain chemicals that are released to the air, water and land, and transfers off-site. CEC recognizes the importance of these PRTRs—such as the Toxics Release Inventory (TRI) in the United States, the National Pollutant Release Inventory (NPRI) in Canada and the *Registro de Emisiones y Transferencia de Contaminants* (RETC) now being implemented in Mexico—for their potential to enhance the North American environment. Tracking chemicals through PRTRs is essential to:

- increase public and industry understanding of the types and quantities of chemicals released into the environment and transferred off-site as waste;
- encourage industry to prevent pollution, reduce waste generation, decrease releases and transfers and assume responsibility for chemical use; and
- track environmental progress and assist governments in identifying priorities.

The national PRTRs are continually changing and expanding, and each new *Taking Stock* report reflects these developments. Future reports will strive to include as much as possible from the additional data being collected by the national PRTRs.

Significant progress has been made in moving towards a mandatory reporting system in Mexico. The RETC is currently voluntary. With the passage of enabling

legislation in 2001, work is underway on the regulations required for reporting to RETC. As the changes take place and mandatory Mexican data become available, these consultative meetings will discuss how the Mexican data can be included and compared with the national PRTR data from Canada and the United States.

In previous years, comments from participants in the consultative meetings have resulted in significant changes to the format and content of the *Taking Stock* report. The Consultative Group has identified areas of particular interest that have then been explored in greater depth through special feature chapters focusing on, for example, specific industry sectors, reporting of pollution prevention activities, uses of PRTR data by industry and community groups and benzene.

The Consultative Group has also provided ideas on ways to better organize and present the information, thereby contributing to CEC's ongoing efforts to better meet users' needs. Such improvements include the two-volume format, comprising the *Summary* document and the more detailed *Sourcebook*, as well as the *Taking Stock* web site which allows for customized, user-driven analyses.

The CEC invites and encourages interested parties to contribute to the development of the *Taking Stock 2001* report. The meeting of the Consultative Group, which is a public forum open to all interested parties, is a significant opportunity to discuss options, obtain new ideas and refine the report. CEC is seeking feedback on a number of ideas, outlined below, and welcomes new ideas.

## **II. Update on the *Taking Stock 2000* report**

*Taking Stock 2000*, scheduled for release in spring 2003, includes data on many chemicals reported for the first time. Both NPRI and TRI added persistent bioaccumulative toxics (PBTs) such as dioxins, furans and hexachlorobenzene, and lowered the reporting threshold for mercury. *Taking Stock 2000* includes an analysis of these newly reported PBTs; a special section on benzene; an analysis of facilities releasing and transferring smaller amounts of chemicals as compared to those releasing larger amounts; cross border transfers; an analysis of the third year of newly reporting sectors such as utilities and hazardous waste management/solvent recycling facilities; and a six-year trend in releases and transfers (1995-2000).

*Taking Stock 2000* will continue to include an adjustment factor in certain analyses. When considering total releases, releases are "adjusted" to avoid counting the amounts released more than once. Chemicals can be generated by one facility and then shipped off-site to another facility for disposal on-site. Chemicals, when shipped off-site for disposal, are called releases off-site. When

the same chemicals are received by another facility for disposal, they are reported as released on-site. Adjusted releases are total on- and off-site releases minus those off-site releases that are also reported as on-site releases by another NPRI or TRI facility. *Taking Stock 2001* will also present adjusted releases to take into account these chemical transfers.

The new *Taking Stock On-line* web site was launched with the *Taking Stock 1999* report. This web site, which is updated annually, currently allows customized queries of the matched data sets for 1995-1999 and downloading of the report. The site is available at [www.cec.org/takingstock/](http://www.cec.org/takingstock/).

### **III. Opportunities for the *Taking Stock 2001* Report**

CEC is proposing the following topics as a starting point for discussion during the meeting, with a view to identifying those opportunities and potential analyses that are of greatest interest.

*Taking Stock 2001*, as did *Taking Stock 1998, 1999 and 2000*, will feature a two-volume format. The "Summary" volume provides an overview and highlights of the information and data, while the "Sourcebook" contains the detailed tables covering industry sectors, chemicals, geographic jurisdictions and facilities. In response to previous suggestions from the Consultative Group, the CEC has also initiated a series of stand-alone special feature reports as part of the *Taking Stock* series. The first of these, focusing on toxic chemicals and children's health, will be released in spring 2003.

Each year *Taking Stock* develops a "matched" data set. This set of data contains the common set of chemicals and industry sectors that reported to both NPRI and TRI. This allows data from the national programs to be compared. Information from Mexico's RETC program will be added once comparable data become available under the mandatory system.

#### ***What's changed in the TRI/ NPRI/ RETC programs for the 2001 reporting year?***

In the past three years, there have been huge changes in both the NPRI and TRI, which in turn presented significant opportunities for *Taking Stock*. In 1998, new sectors such as utilities and hazardous waste management/solvent recovery facilities were added to TRI, and became a dominant part of the matched data set. In 1999, NPRI added over 70 chemicals, and over 40 of these matched with TRI, thereby greatly increasing the number of chemical analyzed in *Taking Stock*. In 2000, PBTs of particular environmental and health concern such as dioxins and furans, and hexachlorobenzene, were reported for the first time. Relatively few changes were made to NPRI and TRI for the 2001 reporting year.

For 2001, changes to the NPRI reporting include addition of N,N-dimethylformamide, amalgamation of cresol isomers under the cresol (mixed isomers) listing, delisting of phosphoric acid, and a changed qualifier for vanadium. These changes increase the matching of chemicals between NPRI and TRI. TRI has lowered the reporting threshold for lead and its compounds. This will take lead and its compounds out of the matched data base and into the group of PBT chemicals analyzed separately. The NPRI reporting threshold has been lowered for lead in 2002, which will allow lead and its compounds to return to the matched data set in 2002.

In 2001, Mexico published a voluntary guideline, (NMX-AA-118-SCFI-2001), which specifies the list of chemicals, the reporting format and the reporting procedures for the current RETC program. With the passage of enabling legislation in 2001 and 2002, Mexico is now developing regulations for a mandatory reporting system.

### **Opportunity One: Highlighting Mexico's Progress**

With the passage of enabling legislation in 2001 and 2002, Mexico has made tremendous strides towards fully implementing the RETC. This section could provide a summary of progress, an outline of activities and a sense of the future. If desired, it could also have quotations and short examples from governmental, non-governmental and industry representatives on progress in the program, shop floor changes, and future directions. This could help to positively profile the many individuals, companies and groups who are working to implement the program. Information could be drawn from workshops in Mexico, case studies and interviews.

The current programs and data from the Mexican states that are implementing a RETC-like system could be highlighted. Some of the states of Mexico, such as Aguascalientes, are beginning to collect data on chemical releases.

In this section, the current year RETC data could also be presented. If desired, the trends in the quality and quantity of the data could be presented, along with the activities which led to these results. As in previous years, the companies that voluntarily completed Section V could be congratulated for their leadership.

#### Issues for Discussion:

- ◆ Are there any particular activities, facilities or actions that should be profiled?
- ◆ Can any of the data from the Mexican states be presented?
- ◆ Can a summary of the RETC data be presented?

### **Opportunity Two: Lead: Trends and Challenges**

Lead is a carcinogen, neurotoxin and developmental toxin. This section could focus on lead and its compounds, and provide a more detailed look at releases and transfers, time trends and projections. Because of the changes in the national programs, lead is no longer part of the matched data set for *Taking Stock 2001*. However, given its importance to health and environment, this section would present the matched lead data up through 2000, and then present the 2001 lead data from TRI separately from NPRI. Any information on lead emissions in Mexico could also be included. The effect of lowering the threshold in TRI on quantities and types of facilities reporting could be discussed. The lowering of the lead threshold in NPRI for 2002 reporting would be noted.

This section could also draw from the CEC's Children's Health and the Environment program by discussing common sources, pathways and health effects of lead in children of North America. Some examples of the progress made in all three countries in reducing lead emissions could be discussed.

#### Issues for Discussion:

- ◆ What specific types of information or analyses would be interesting for lead?
- ◆ What other types of information could be included?
- ◆ What activities, programs or actions should be included?

### **Opportunity Three: Taking a more in-depth look at the reasons behind the data**

Now that *Taking Stock* has been reporting comparable data for the US and Canada for seven years, many questions arise about some of the reasons behind the trends seen in PRTR data. *Taking Stock 2001* could explore some of these questions, such as:

- Why do some chemicals show such large changes in releases or transfers from year to year?
- Is the toxicity of the chemicals released increasing as quantities are decreasing?
- Why do NPRI facilities tend to release more chemicals on site and TRI facilities tend to send more chemicals off-site for disposal or further management?
- What actions are some of the facilities that release or transfer large quantities of chemicals taking to reduce emissions?
- Why are carcinogens decreasing at a slower rate than other chemicals?
- What or who is driving the increase in off-site releases?
- What or who is driving the decreases shown in releases?

- Why do some sectors show such large differences in average releases/transfers among countries or years?
- What factors contribute to large amounts of recycling within a state or province?
- Have facilities reporting pollution prevention contributed to decreases?
- Why do facilities that report reductions in releases on-site also tend to report increases in chemicals sent off-site?
- Are the trends for facilities reporting the smaller volumes (which make up the majority of the numbers of facilities reporting) similar to or different from the facilities reporting the largest volumes (which dominate the amounts and determine the trends in the total database)?
- Are some changes due to changes in methods of estimation?

Issues for discussion:

- ◆ Are there any particular trends that should be explored?
- ◆ Are there particular analyses of the reasons behind the PRTR data that would be of interest?
- ◆ Would any sectors, facilities, groups or individuals be interested in sharing their knowledge of some of the reasons for changes?

#### **Opportunity Four: Watershed Analyses**

When reporting their data on releases to water under the national PRTR programs, facilities are required to specify the receiving water body. Thus, the PRTR data can be a useful source of information on loadings of listed chemicals into specific rivers, streams, lakes or marine areas. An analysis of PRTR data by receiving water body or watershed could be a useful starting point for identifying possible chemical contamination issues, gauging the relative contribution of industrial facilities to toxic loadings, or for tracking improvements.

While the cross-boundary analyses in *Taking Stock* have typically focused on transfers of chemicals sent for treatment, disposal or recycling between the three countries, rivers and other water systems represent other pathways by which pollutants may cross borders. Examples include the St. Lawrence River, which constitutes the Canadian and US border for hundreds of kilometers; the Columbia River system flowing from southwest Canada to the northwestern US; and the Rio Grande forming the border between Texas in the US and several Mexican states.

This topic was discussed at the previous consultative meeting. Participants were particularly interested in a watershed-based analysis since it can provide a regional picture of PRTR data, integrate other sources of information and provide additional context to PRTR data. Some specific suggestions from the previous

meeting for watersheds to examine were: the Mississippi River, the Great Lakes, coastal waters, and the Gulf of Maine and the Bight of California—the latter two being areas where the CEC is already involved.

An analysis of PRTR data by receiving water body or watershed could look at annual trends, industrial sectors and/or particular chemicals of interest. PRTR data can provide information on loadings of toxic chemicals within watersheds, but data on water quality, other pollutants and permits must be obtained from other sources.

Issues for discussion:

- ◆ Would an analysis of PRTR data by watershed be of interest?
- ◆ Which watershed(s) should be studied?
- ◆ How could the data be presented?
- ◆ What might be some of the issues to be considered in undertaking such an analysis?

**Opportunity Five: Your Ideas**

Participants are invited and encouraged to come to the meeting with other ideas for special analyses or areas of interest that could be considered for the *Taking Stock* report or which might form the basis for separate special feature analyses. CEC will also be gathering ideas from the discussions taking place with other CEC programs on potential links to the PRTR program.

Your feedback and suggestions on the format of the report and the website are also welcome.

***For additional information or to provide comments, please contact:***

Erica Phipps  
Program Manager  
Commission for Environmental Cooperation of North America  
393, rue St-Jacques Ouest, bureau 200  
Montreal, Québec H2Y 1N9  
Canada  
Tel: (514) 350-4323  
Fax: (514) 350-4314  
Email: [ephipps@ccemtl.org](mailto:ephipps@ccemtl.org)  
Web site: <http://www.cec.org>