

Commission for Environmental Cooperation of North America



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

***28–29 November 2006
San Diego, California, United States***

***Meeting Summary, Response to Comments and
Proposed Directions for Taking Stock 2005***

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Commission for Environmental Cooperation Meeting Summary

Annual Meeting of the Consultative Group for the North American Pollutant Release and Transfer Register (PRTR) Project 28–29 November 2006 San Diego, California, United States

1. Introduction

The Commission for Environmental Cooperation (CEC) organized a public meeting in San Diego, California as a forum for exchanging ideas and obtaining stakeholder input in the implementation of the CEC Pollutant Release and Transfer Register (PRTR) program, to explore activities in industry and indigenous communities and to obtain ideas for the development of the *Taking Stock 2005* report. *Taking Stock* is an annual report which analyses publicly available data from the Canadian National Pollutant Release Inventory (NPRI), the US Toxics Release Inventory (TRI) and the newly established Mexican *Registro de Emisiones y Transferencia de Contaminantes* (RETC). Following the meeting was a special session for tribal and indigenous communities on 30 November (see separate meeting summary).

About seventy people from academia, nongovernmental groups, industry and government, from Canada, Mexico and the United States, attended the meeting. The list of participants is attached as Annex A. A discussion paper entitled "Consultations for the *Taking Stock 2005* report on North American Pollutant Releases and Transfers" was circulated in advance to provide background for the meeting. The discussion paper and the presentations from the meeting are available at the CEC web site at: www.cec.org, or by request.

This meeting summary summarizes the discussions from the public meeting regarding progress in the national and CEC PRTR programs, current activities using PRTRs in industry and in aboriginal communities, and opportunities for *Taking Stock 2005*. This document also outlines the directions for the *Taking Stock 2005* report.

In addition to the discussion and comments shared at the meeting, the CEC received comments in writing prior to and following the meeting. The CEC wishes to thank all of the members of the Consultative Group for their comments and suggestions, and for their continued involvement in the *Taking Stock* report and the CEC's PRTR project. We also thank the indigenous representatives for their participation and for their continued interest in the CEC's trilateral activities. Comments on the *Taking Stock* report are welcome at any time.

2. Meeting Summary

Day 1: Tuesday, 28 November 2006

The meeting opened with a blessing from Ron Plain of the Aamjiwnaang First Nation in Ontario. The new CEC executive director, Adrián Vázquez, welcomed participants to the meeting; he noted the history of the CEC program and the critical role of pollutant release and transfer register (PRTR) data to inform decision-makers about pollution trends and potential effects of toxic chemicals throughout North America. The CEC continues to promote the comparability of the national systems to track and assess the management of these chemicals across the continent. Mr. Vázquez noted the important milestone of the release of the first mandatory RETC data and congratulated Semarnat and Mexico. The implementation of the RETC signifies an important step toward fulfilling the CEC's objective to build comparable PRTR systems in North America.

Enrique Manzanilla, director, Communities and Ecosystems Division, US EPA-Region 9, presented an overview of activities in the Region 9 area, which includes San Diego. The region comprises 146 tribes and 131 environmental programs. He added his congratulations to Semarnat on the publication of the RETC data, and noted that it will help to track pollutants across the region.

Keith Pezzoli, professor, University of California at San Diego, described the region of San Diego and highlighted many of its environmental challenges, including barrel-burning, hazardous waste, and landfills. San Diego can be characterized by both extreme wealth and poverty, and has the highest density of tribes in the United States. He described four waves of environmental issues: the first wave representing the development of environmental laws and regulations, the second wave being the development of market-based mechanisms, the third wave representing the development of information strategies and the fourth wave as cyber infrastructure for sustainability. Dr. Pezzoli sees PRTR databases fitting into the fourth wave, which supports information-sharing and new environmental strategies.

Session I: Program Updates

CEC PRTR program

Keith Chanon, PRTR program manager, described current activities and progress in the CEC PRTR program, including the publication of *Taking Stock 2003*, the report titled *Children's Health and Toxic Chemicals*, and the revised CEC Action Plan; the expected publication of *Taking Stock 2004* in spring 2007; increased outreach with indigenous and tribal communities; and ongoing work to support implementation of Mexico's RETC. He also introduced the major themes of the meeting, along with the goals of the CEC's PRTR program.

Canada's National Pollutant Release Inventory (NPRI)

David Backstrom of Environment Canada presented an overview of Canada's National Pollutant Release Inventory (NPRI). NPRI is one source of information about pollution, complementing other inventories and ambient air monitoring. The NPRI program has grown from its beginnings in 1992, and now covers additional pollution sources such as oil and gas, additional chemicals and additional facilities. NPRI will continue to evolve in the future with planned changes, such as reporting on individual dioxin and furan

congeners, additional PAHs, and chemicals identified through categorization of Canada's Domestic Chemicals list. NPRI is also planning additional tools to improve access and understanding of NPRI data. Because of the growth in the number of facilities reporting to NPRI, Environment Canada uses a consistent facility analysis for trends. A consistent facilities analysis is included in *Taking Stock 2003* and Canada would welcome its inclusion in *Taking Stock Online*. NPRI data are a valuable resource, but require context for data analysis and presentation. Canada looks forward to continued collaboration with the United States, Mexico and the CEC to improve quality, comparability analysis and presentation of trilateral data. More information is available at the NPRI web site: <www.ec.gc.ca/pdb/npri>.

Participants welcomed the inclusion of oil and gas reporting, the reporting of individual dioxin and furan congeners and encouraged methods to track facilities when part of a facility is sold to another company. A participant suggested that analysis include the methods used to collect the data, as there are many different levels of quality. The waste rock/tailing issue has been referred to the Mining Sustainability Table. A participant enquired about the amount of pollution captured by NPRI, and David replied that for some contaminants, such as sulphur dioxide, NPRI represented the majority of emissions; while for others, such as carbon monoxide, NPRI emissions were small compared to mobile emissions; for other contaminants, including many toxics, the situation is less clear. A participant expressed the need for the NPRI information to be made more accessible to the aboriginal communities.

US Toxics Release Inventory (TRI)

Ben Smith, associate director, Toxics Release Inventory, described the TRI program in the United States, with about 90,000 chemical reports from 23,000 facilities on about 650 chemicals. Data are due for the facilities in July; facility data are available in September, with more detailed analysis available in March of the following year. In 2004, total disposal and other releases were 4.24 billion pounds, about 25% from mining, 25% from electric utilities, 15% from the chemical industry and 12% from the primary metals industry. The amounts reported have declined for many sectors. Current changes include collecting data using NAICS, a North American system of industrial codes (finalized in 2006); dioxin reporting to include toxicity equivalents as well as grams (in process); an EPA metals framework (in process); and burden reduction proposals (in progress). TRI is working on improving data quality, information utility and availability. TRI is also considering the creation of a data quality forum, perhaps using a blog, wikipedia or web page approach. More information is available at <www.epa.gov/tri>.

Participants were interested in the status of TRI burden reduction proposals (no decision was made public at the meeting), legal challenges in the mining sector, the metals framework, EPA proposed analyses on recycling and off-site transfers, and waste rock impact. In response to a question about TRI not collecting data on greenhouse gases, Ben replied that TRI was implemented to address the issue of toxics, and recent lawsuits de-listing chemicals because they are not directly toxic seem to make it unlikely that there will be an opportunity to add non-toxics, such as greenhouse gases.

Mexico's Registro de Emisiones y Transferencia de Contaminantes (RETC)

Ana Maria Contreras Vigil, director general of *Gestión de la Calidad del Aire y RETC*, Semarnat, described the RETC program and announced the publication of the final data for the 2004 reporting year. She congratulated Maricruz Rodríguez Gallegos and her RETC team on achieving this milestone of data reporting, and summarized the results of

the 2004 mandatory RETC data. The RETC program has been developed over the years, with 2004 marking the first year of mandatory reporting of data. According to the March 2005 national agreement, facilities report on 104 chemicals, including greenhouse gases and criteria air contaminants. Over 11,000 reports were received with 2004 data and 25,000 electronic reports with 2005 data. The RETC program involved substantial outreach, including the training of 9,000 users and development of guidance videos.

Facilities report releases to air, water, land and transfers to sewage, reuse, co-processing, recycling and final disposal. The RETC program is being implemented with state and municipal governments who will collect data on specific industries and media. Many Mexican states have an agreement with Semarnat on reporting, some have legal frameworks in place, and eight states are already collecting data.

For the 2004 reporting year, emissions to air were 250,000 tonnes, to water: 3,500 tonnes, to land: 0.12 tonnes, and to sewage: 11.54 tonnes. Emissions of greenhouse gases were 1,390 million tonnes. The top chemicals released to air were sulphuric acid (241,588 tonnes), formaldehyde (6,562 tonnes), dichloromethane (833 tonnes) and vinyl chloride (346 tonnes). The top chemicals released to soil (land) were lead (62.4 tonnes), benzene (29.6 tonnes) and nickel (10.3 tonnes). Most of the transfers were to recycling (49%) and final disposal (31%). Future priorities of the RETC are data quality, publication of a national report, working with the states, and developing a national regulatory standard (NOM). More information is available at: <www.semarnat.gob.mx>.

Participants were concerned about the possibility of removing greenhouse gases from the RETC and Ana Maria replied that a decision had been made to keep greenhouse gases on the RETC list. Reporting greenhouse gases through RETC will complement Mexico's greenhouse gas inventory. There may be opportunities to add to the chemical lists in the NOM process, and to review chemicals that are on the list, but not reported. Participants were interested in the coverage of the RETC program, and Ana Maria replied that of the 30,000 facilities expected, about 25,000 facilities actually reported, indicating a coverage of approximately 85%. Participants asked about data quality, and Ana Maria replied that Semarnat had put in a major effort to correct the draft RETC data, that over 500 facilities were contacted and 1000 chemical reports were corrected during this 30-day revision period. The final data include all these corrections. Some common mistakes were facilities reporting greenhouse gas data in two places, and errors in units. Ana Maria is interested in working with the CEC and others to review the RETC data, improve data quality and develop reporting guidelines.

Trilateral Picture of Releases and Transfers of Chemicals in North America

Sarah Rang, Environmental Economics International and a consultant to the CEC, presented the first trilateral picture of releases and transfers of chemicals in North America. This represents a milestone in the CEC PRTR program, and is an important step towards further understanding of pollutant releases and transfers across North America. The presentation described the data-matching process and preliminary analyses of data. The trilateral picture takes data from the three countries' PRTRs and matches for chemicals, sectors and reporting requirements. Combining the 650 TRI chemicals, 300 NPRI chemicals, and 104 RETC chemicals results in a trilateral data set of about 60 common chemicals. Matching TRI and NPRI data results in about 200 common chemicals. Matching for sectors gives a list of about 15 sectors common to all three PRTRs, and includes most manufacturing, electric utilities and hazardous waste

generators. Some sectors, such as oil and gas, are not included in the trilateral data. Matching by reporting requirements excludes some chemicals, such as arsenic and cadmium, some criteria air contaminants, and greenhouse gases. There are also important differences among the three countries in reporting thresholds, which may affect the comparative analyses (e.g., Mexico has no employee threshold and facilities can choose to report using thresholds based on releases, or based on manufacturing, processing, or otherwise-used).

The regulatory differences between the three countries highlight the need for greater comparability as described in the CEC *Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America*. The CEC is conducting an in-depth analysis of the data for the upcoming *Taking Stock 2004* report.

Participants welcomed the RETC data and congratulated Semarnat on the data release. Participants were interested in, concerned about and encouraged efforts to further data quality and comparability. Methods suggested were sector training sessions, reporting guidelines and data quality reviews. Participants also suggested some analyses for trilateral data including: average releases per facility, sector analysis, and comparison of the effects of different thresholds. Discussions revealed that Mexico is relying on strict scientific criteria for listing chemicals, while TRI and NPRI, in their early development, relied upon existing lists that identified high risk chemicals.

Session II: Cross-border Industry Initiatives towards Comparability and Uses of PRTR Data

Grace Barrasso, director of Sustainable Development, Health and Safety at the Aluminum Association of Canada, gave an overview of the aluminum industry, its reporting practices to the NPRI and the development of sector-wide indicators. She suggested NPRI data would be more useful with additional context, such as including production capacity and identification of industry leaders. She identified differences in the reporting from the aluminum industry to NPRI and TRI: TRI facilities report water releases and NPRI facilities do not, NPRI facilities report carbon monoxide and TRI facilities do not, and facilities use different emission factors within Canada. Reports using NPRI data had created difficulties in the communities around aluminum plants. Aluminum facilities in both countries used PRTR data in the early years to reduce pollution and set reduction targets, while currently, the data are used more for measuring compliance with corporate goals. However, targets are now driven by other factors, such as sustainable development goals and community programs. The aluminum association is developing sustainable development indicators, drawing upon work in Europe.

Participants were interested in improved control of “red mud,” one of the wastes remaining from aluminum production, which is an issue for some communities. Grace noted that the association was looking for solutions to red mud, as the existing situation is no longer acceptable. Participants were also interested in the life cycle of manufacturing aluminum and global practices.

Beatriz López Linares, superintendent, Environmental Control, Daimler Chrysler, Toluca, Mexico, described the environmental programs at the car manufacturing plant. Major activities have included changing paint formulations to lower volatile organic compounds, installation of a water treatment system, and recycling of hazardous waste. The company has won numerous awards for its environmental activities. Participants asked

about the greenhouse gas program, and Beatriz described the company's reforestation efforts. Beatriz noted that Daimler Chrysler found reporting to the RETC to be straightforward. Staff attended seminars and worked with their industrial and governmental counterparts in finalizing their reporting. She suggested that a working group for each sector to assist with RETC reporting would be useful.

Jeffrey Burke closed the session with a brief description of the U.S. National Pollution Prevention Roundtable and their activities with their counterparts in Canada and Mexico.

In the panel discussion, participants discussed the use and communication of PRTR data, and the need to provide context. Some participants were interested in normalizing PRTR data by some measure of production; others noted that this would be difficult given the differing nature of sectors reporting to PRTRs. Some participants felt that PRTR data had been "misused" and created fear in communities; others felt that many different presentations and interpretations of the data were possible, and that PRTR data served to start a discussion. It was suggested that there be some training of the media in relation to PRTR data analysis and presentation.

At the evening reception, Tomás Torres, Director of EPA's San Diego Border Office, provided an overview of the US-Mexico Border 2012 program. Border 2012 has six goals and a number of local projects, including water and wastewater infrastructure, diesel retrofitting of trucks and buses, clean-up of tire piles, preparation of emergency preparedness manuals and prioritizing and targeting of high-risk sources of chemicals. (See <www.epa.gov/Border2012>, or <www.semarnat.gob.mx/frontera2012>).

Day 2: Wednesday, 29 November 2006

The meeting opened with a blessing from Teodora Cuero, a Kumeyaay elder from the La Huerta community in Baja California, Mexico.

Session III: PRTRs, Tribal and Indigenous Communities and Public Health: Incorporating PRTR Data in Assessing Community Health

Dr. Laurie Chan, a professor at the University of Northern British Columbia, described his research in mapping NPRI data, estimating the impact of industrial pollution on aboriginal communities, identifying contaminant hot spots, and exploring the relationship between exposure to toxic contaminants and health. About one-fifth of Canada's aboriginal population, or 200,000 people, is potentially exposed to pollution from NPRI facilities. The mercury hot spot is in Ontario, dioxin and furan hotspot is in BC, and the lead hotspot is in New Brunswick. Dr. Chan is now working with medical professionals to collect data on birth outcomes.

Dr. Alvaro Osornio, from Mexico's National Institute of Cancer, discussed children's environmental health and the possibility of mapping environmental health risks to children. Dr. Osornio explained that a key reason for studying children's environmental health includes their unique pathways for exposure to toxics, including in-utero, hand-to-mouth while still in the crawling stage, and play habits; and the fact that they are a politically powerless group.

Dr. Osornio suggested that maps can help generate hypotheses. He outlined the different environmental and health data layers that would be required and some of the challenges in developing map layers. PRTRs can provide one of the data layers.

During the panel discussion, participants suggested that acute health effects, such as nosebleeds and asthma attacks, can also be correlated with chemical releases. Chemical releases during upsets, spills and leaks and historical contamination can also be important in community health. Participants noted the many confounding factors in environmental health analysis, such as changing air flows, time delays between exposure and health outcome, multiple exposures, multiple contaminants, smoking, and so on.

Use of PRTR Data in Tribal and Indigenous Communities

Ron Plain, chairman of the Aamjiwnaang First Nation Environment Committee, described environmental conditions in Ketegaunseebee (Garden River Reserve) near Sault Ste-Marie and also in his community near Sarnia, Ontario. In Ketegaunseebee, the environmental concerns are salt contamination from road spraying and industrial emissions. In Aamjiwnaang, they are air releases from the nearby petrochemical and polymer facilities. Fear of these emissions is a major concern, as are their impacts on the community's cultural way of life (hunting, fishing, and ceremonial activities). NPRI data have been used to understand changes in sex ratio, apply pressure for permit applications, and benchmark emissions from industry. Many Sarnia area refineries are regularly above US emissions standards. To be effective for aboriginal communities, the NPRI data need to be expressed visually (through the development of new materials), explained in general terms, and geared towards tribal health resource people. Ranking industrial facilities assists the public in understanding data.

Paula Stigler, air quality specialist, Pala Band of Mission Indians, described how TRI data could be used by tribal communities. PRTR data and tribal community boundaries can be downloaded from the US National Atlas web site at: <www.nationalatlas.gov>. Data on releases and transfers can be downloaded from the CEC's *Taking Stock* web site at <www.cec.org> and government PRTR web sites. Paula suggests that PRTR data are useful to "start the ball rolling" in learning more about the environmental issues facing tribal communities, to begin discussions with tribal members, conduct research, communicate with communities, discuss concerns with industrial facility managers, and understand releases and transfers of nearby facilities. Paula presented maps of facilities and tribal lands and a case study of one facility, Survival Systems International Inc., which is located within the boundary of the Rincon reservation and which releases styrene to the air.

In the panel discussion, participants discussed effective ways to communicate with tribal communities, including presenting information visually and at tribal meetings or Sunday assemblies; discussing with tribal resource persons; contacting environmental specialists within tribal organizations; making information on chemicals and health effects available to health professionals in reserves, such as doctors, nurses, and outreach/health promotion workers; talking directly rather than using email or printed materials; and translating numbers into meaningful comparisons. Useful tools for aboriginal and other communities included the creation of an odor log and health effects log to correlate with activities on industrial facilities sites, maps of industrial facilities, linking with unions, and providing the telephone numbers of people managing facilities.

Participants proposed that the CEC create a small working group to assist with the communication of PRTRs in aboriginal communities. Other participants noted that the need to communicate PRTR data also extends beyond aboriginal communities.

Session IV: Opportunities for *Taking Stock 2005*

Danielle Vallée, consultant to the CEC, provided a summary of the *Taking Stock* “Power Users” meeting held at the CEC in August 2006. At this meeting, participants discussed the added value of *Taking Stock*, proposed changes to streamline the report while enhancing *Taking Stock Online*, and identified target users. A meeting summary is posted at <www.cec.org/takingstock>.

Evan Lloyd, director of Communications at the CEC, presented the proposed changes to the *Taking Stock Online* web site. These include enhanced graphics, additional explanatory material and new search functions. Sarah Rang, Environmental Economics International, presented nine options for the special feature chapter of *Taking Stock 2005*. One of these options, mapping PRTR data, was the subject of a separate presentation given by Cody Rice, program manager for Environmental Information at the CEC. Cody described various mapping methods, presented maps of different elements of PRTR data and demonstrated existing data layers.

In the Special Feature Chapter discussion, participants were most interested in Option 1 (Mapping PRTR data), followed by Option 7 (Transfers to Disposal). These were followed in preference by Option 3 (Using PRTR data as Indicators/Toxicity Weighting) and Option 6 (Sector analyses, with the oil and gas sector most frequently suggested).

Option For <i>Taking Stock 2005</i>	Comments
1. Mapping	General interest from many participants. Mapping helps to explain data and localize data. Create data layers on facilities, releases, flows of chemicals transferred, also present existing layers of roads. Could link with Google Earth. Could map water and airsheds. Could include other environmental layers such as water reserves, vegetation, protected land, etc.
2. Tracking Progress	Analysis may be difficult, as the CEC would have to interview facilities. Very difficult to know reasons for change, from the PRTR data reports. Perhaps better suited for each country than for CEC work.
3. Indicators / Toxicity Weighting	Interest in indicators, lots of industries working on development of indicators, PRTR data could be part of one indicator. Normalization of data is difficult because of the number of sectors. Normalization could work within one particular sector. Existing CEC presentation of toxicity weighting seen as useful and sufficient (it might be difficult to do more); it is also useful at the facility level to prioritize contaminants.
4. Pollution Prevention	Interest in topic, but there is a feeling that PRTR data on pollution prevention may be limited and/or of poor quality. Interest in furthering pollution prevention, discussion on drivers of pollution prevention and role of PRTRs/ ISO and other programs.

5. Persistent, Bioaccumulative and Toxic chemicals	Interest in topic, particularly in trends in metals and dioxins and furans. Interest in reasons for/effect of differences in reporting on PBT.
6. Sector analysis	Lots of interest from participants in this topic, sectors suggested for analysis include oil and gas (not included in TRI), electronic industry (not included in RETC), and mining (metal processing included in all three PRTRs). Sector could be chosen based on criteria. Analysis of interest: trends, projections, normalization.
7. Transfers to Disposal	Important because of large transfers to landfill, some increases in transfers such as sewage. Flow of transfers is of interest—location, amounts, changes. Need to track transfers separately from releases.
8. Learning from each other	Seen as similar to existing activity (CEC Action Plan). Lower priority for many participants.
9. Your Ideas	Suggestion to focus on metals.

Proposed Direction for *Taking Stock 2005*

The annual consultative meetings provide an important opportunity for stakeholders to help guide the development of the *Taking Stock* report. Based on comments heard at the meetings and the availability of resources, the following is an overview of the proposed directions for *Taking Stock 2005*:

- Continue the existing analysis of TRI/NPRI data,
- Continue to present the second year of trilateral TRI/NPRI/ RETC data,
- Continue to enhance *Taking Stock Online* (consistent facility analysis)
- Map the PRTR data as part of the CEC North American Atlas project work
- Consider a focus on comparability
- Integrate more contextual information related to the scope and limitations of PRTR data
- Continue to include a special feature chapter

Comments on the *Taking Stock* reports are welcome at any time. Please direct comments to the CEC at the address shown inside the front cover of the reports.

Annex A: List of Participants



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

*Grupo Consultivo del proyecto Registro de Emisiones y Transferencias
de Contaminantes (RETC)*

San Diego, California, United States

28-29 November 2006

Provisional list of Participants / Lista provisional de participantes

29-11-06

Please inform the Secretariat of any mistake or missing name
Favor de informar al Secretariado de cualquier error u omisión

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