

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

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**Roundtable Discussion on Opportunities and Challenges  
of Pollutant Release and Transfer Register Reporting  
in Mexico**

5 March 2001



**Background Paper**

## 1. Introduction

This document has been prepared as an aid for participants in the Roundtable Discussion on Opportunities and Challenges of Pollutant Release and Transfer Register Reporting in Mexico. The meeting is hosted by the North American Commission for Environmental Cooperation (NACEC). Given the importance placed on the further development of the Mexican PRTR program by members of NACEC's PRTR Consultative Group and other interested parties throughout North America, this roundtable discussion is being held as a special session during the first day of the annual public meeting on the North American PRTR Project, scheduled for 5-6 March 2001 in Mexico City.

The roundtable discussion is intended as a forum for interested parties -- including government, industry, environmental and public interest groups and others -- to share ideas on the benefits of the RETC, identify barriers to RETC reporting, data access and use, and to discuss possible next steps for the future development of the RETC. Participants are encouraged to come to the meeting prepared to share their perspectives and ideas.

This background document outlines the current status of the *Registro de Emisiones y Transferencia de Contaminantes* (RETC) and describes key stages in its development over the past seven years.

## 2. Description of the Current RETC

The *Registro de Emisiones y Transferencia de Contaminantes* (RETC) is an inventory of releases and transfers of selected chemicals reported on a voluntary basis from certain industrial facilities in Mexico. The RETC covers 11 industrial sectors that are under Mexican federal jurisdiction. The 11 industrial sectors are: petroleum, chemical and petrochemical, paints and dyes, metallurgy (includes the iron and steel industry), automobile manufacture, cellulose and paper, cement and limestone, asbestos, glass, electric power generation, and hazardous waste management. The proposed RETC list contains 104 chemicals. Each category of chemicals has specific reporting thresholds.

The current proposal for the RETC was issued as a voluntary Mexican Standard (*Norma Mexicana* – NMX ) in September 2000 for a sixty-day comment period. Reporting is voluntary until the legal framework is established. The National Institute of Ecology (*Instituto Nacional de Ecología*—INE) is the federal environmental authority in charge of the collection, management and analysis of environmental data, including the RETC data. INE is under the direction of the Mexican Ministry of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*—Semarnat, formerly Semarnap).

Facilities use an integrated form, the Annual Certificate of Operation, (*Cédula de Operación Anual*—COA), to report environmental data. The COA has five sections. Only Sections I and II, which deal with the facilities' general information and air emissions of certain pollutants, respectively, are mandatory. Section V of the COA is comparable to Canada's National Pollutant Release Inventory and the US Toxic Release Inventory.

The air pollution section (Section II) covers criteria air pollutants for which there are emission standards. For 1998, facilities reported air emissions of sulfur dioxide, nitrogen

dioxide, particulates and volatile organic compounds. Reporting of other criteria air contaminants (unburned hydrocarbons, carbon monoxide and carbon dioxide) is voluntary until the Official Mexican Norms are issued.

Section III of the COA, "Water Usage and Wastewater Discharge," is optional. Facilities report the volume of wastewater and concentrations of heavy metals rather than specific amounts of substances that are in the wastewater.

Section IV, "Hazardous Waste Generation, Treatment and Transfer," is also optional, but when submitted, the facility is exempted from having to submit the corresponding hazardous waste manifests to the INE for the reporting cycle. Facilities report on the total volume of waste that contains hazardous substances, but not on the amounts of the listed chemicals contained in the waste.

Section V, "Pollutant Releases and Transfers," called the RETC, is for the voluntary reporting of releases and transfers of chemicals. Facilities may report on the amounts of chemicals released to the air, land and water. There is no underground injection in Mexico. Facilities may also report on the amounts of chemicals sent offsite for treatment and disposal.

The latest COA form is available for downloading from the Internet at [www.ine.gob.mx/dggia/retc/coa/formato.html](http://www.ine.gob.mx/dggia/retc/coa/formato.html).

Under the recent proposal, the information provided by the facilities is for statistical purposes only, and will not be considered evidence before any administrative or fiscal agency or judicial action. Information published will also conform to the principles of confidentiality and the requirements of the Law of Statistical Information and Geography. The information published should include the industrial sector reporting the releases and transfers, the geographical location at the municipal, or airshed or watershed, the name of the chemicals released or transferred and the amount of releases and transfers per chemical. An annual report will be printed and also available from the government web site. Written permission from the responsible party to Semarnat will be required before information can be published on a specific facility.

A process for addition, deletion and updating the list of chemicals has also been proposed. During January or February each year, any interested person can request a chemical to be added or deleted from the list. The evaluation of the chemicals is based on toxicity, persistence and bioaccumulation criteria.

### 3. History of the RETC

The RETC system has evolved over the past seven years. The idea for a pollutant release and transfer register (PRTR) in Mexico was driven by a number of forces including international agreements such as *Agenda 21*, a 1994 pilot project in Mexico sponsored by the United Nations Institute for Training and Research (UNITAR), the Organization for Economic Cooperation and Development (OECD) guidelines encouraging member countries to develop PRTRs, and the emerging Mexican national environmental program.

#### *Development of the National Executive Proposal*

The RETC was originally developed with the assistance of the National Coordinating Group- *Grupo Nacional Coordinador*, a consultative forum of 38 governmental, industrial, academic and non-governmental organizations established by INE as a mechanism to achieve consensus among interested parties. This group of approximately 100 people met for over two years to design the technical, administrative and legal infrastructure for the RETC.

As part of the project, in 1995-96, a RETC pilot trial was run in the State of Queretaro, north of Mexico City by the group. Eighty facilities were invited to participate, and 51 facilities completed the reporting forms. The information received varied widely in quality, mainly due to the lack of experience in reporting and estimating releases. From the list of 178 chemicals, 64 chemicals were reported as having been used inside the facilities and 51 chemicals were reported as released to the environment. The number of chemicals reported by a facility varied from 1 to 44 with an average of 4.8 chemicals per facility. Combustion gases accounted for the majority of releases, and most releases were reported to just one media. The pilot trial pointed out the need for guidance for industry on estimating releases and filling out the forms. A report on the pilot project was produced in English and Spanish. Facility specific data was not included in the report.

In March 1997 the National Coordinating Group completed the National Executive Proposal for the RETC. Under this proposal the RETC required reporting from a facility with 30 or more full time employees who work 2000 hours per year, that manufactured, processed or otherwise used any chemical on the RETC list, and that was from an industry sector considered to be of federal concern. The list of chemicals requiring reporting was 178 chemicals, selected on the basis of toxicity, persistence and bioaccumulation criteria, and the chemical list had to be reviewed every two years.

While the group achieved consensus on the design of the RETC, a number of important issues remained unresolved. The type of public access to the information and the public availability of information on specific facilities was a source of controversy. The group had discussed a phased-in approach whereby for the first two or three years the data would be available on an aggregated basis by regions or municipalities, and after this time, facility specific data would be publicly available.

In April 1997, the Mexican environmental department proposed an integrated system of environmental regulation with three components:

- a single environmental license (*Licencia Ambiental Unica- LAU*),
- the annual certificate of operation (*Cedula de Operacion Annual- COA*) and
- voluntary environmental management plan (*Programa Voluntario de Gestion Ambiental- PVG*).

The RETC was a section of the second component, the annual certificate of operation. The Agreement that established the LAU and the COA went into effect in June 1997.

#### *First Year of Voluntary Reporting in 1997*

Mexican facilities first voluntarily reported for the year 1997 on a list of 178 chemicals, based on the list included in the National Executive Proposal. This list of chemicals was chosen based on toxicity, persistence and bioaccumulation criteria. Facilities of all sizes could report, as there was no employee threshold for reporting. There was also not a threshold for the amount of chemical manufactured, processed or otherwise used. Levels of participation were low: fewer than five percent of facilities under federal jurisdiction elected to report their RETC data.

The first National Pollutant Releases and Transfers Report describing the RETC process and objectives was issued in December 1999. This report is a summary of environmental policy tools for pollution control and prevention and of the issues facing Mexico in its path to continued development of environmental policy.

While the first National Pollutant Release and Transfers Report did not contain data reported on the COA, it did present a summary of information from a number of different government programs including data on criteria air pollutants, average daily wastewater discharge volumes, hazardous waste generation volumes, and estimates of greenhouse gases. The report can be found on the Internet at [www.ine.gob.mx/dggia/retc/publicacion/informes/informe1/infor1.html](http://www.ine.gob.mx/dggia/retc/publicacion/informes/informe1/infor1.html).

For the 1997 reporting year, a total of 1,893 facilities submitted COA forms. About 60 percent of the documents (1,129 submissions) were considered complete COAs (that is, Section I and II data submitted).

#### *Second year of voluntary reporting in 1998*

Minor changes were made for the second reporting year, 1998. For the 1998 reporting year, Mexican facilities submitted 2,308 COA forms, but less than half of these were put into the database, because some facilities were under state jurisdiction not federal, others lacked an official environmental permit number or had erroneous or no information. Less than four percent of the facilities (50 facilities) reported data in the optional Section V, the RETC.

To increase and improve the level of reporting, INE has issued guidance manuals for individual industrial sectors (available on the web at [www.ine.gob.mx/dggia/retc/coa/guias.html](http://www.ine.gob.mx/dggia/retc/coa/guias.html)).

In addition, INE and Semarnat, in collaboration with Mexican industrial groups, academic institutions and professional associations, are conducting training courses on how to fill in the COA.

#### *Issuance of the Norma Mexicana in 2000*

In the first half of 2000, INE developed a voluntary standard for the reporting of pollutant emissions and transfers. Issued in September 2000 as a Mexican Norm (*Norma Mexicana-NMX*) it establishes:

- (1) the applicability of the RETC report to stationary industrial facilities,
- (2) a list of substances to report and its reporting thresholds,
- (3) the reporting format (COA) and the
- (4) rationale for selection of the substances.

Unlike the NOMs (Mexican Official Standards), which are mandatory, Mexican Standards (NMXs) are voluntary. However, the NMX is considered a step toward the final implementation of the RETC.

The proposal contains a new list of chemicals and reporting thresholds. The new list of 104 chemicals will be applicable for the reporting year 2000. There is a reporting threshold (kg/yr) based on use for each group of chemicals (see [Annex A](#)). In publishing the voluntary standard, INE reduced the number of chemicals to 104, from the 178 chemicals used for reporting in 1997 and 1998. Some of the chemicals that are reported in large volumes in Canada and the US are not on the proposed Mexican list, such as hydrochloric acid, xylenes, methyl ethyl ketone and methanol.

#### **4. Current status of the RETC program**

The proposed voluntary RETC system was published on September 28, 2000 for a sixty-day comment period ending on November 27, 2000. Comments were received demanding mandatory reporting, public access to data and greater similarity to other North American PRTRs. INE together with the *Comite Nacional de Normalizaci6bn para la Protecci6n Ambiental* responded to the comments and approved the proposal in December of 2000.

The summary report of the 1998 data will be published this spring, and will be available on the web at [www.ine.gob.mx/dggia/retc.html](http://www.ine.gob.mx/dggia/retc.html).

On the aim of implementing the RETC nationwide, by mid-2000 Semarnat developed the *Programa de Desarrollo Institucional Ambiental* (PDIA). This program provides financial support to states interested in developing environmental tools. As part of the program, several states are now considering a PRTR system to cover state regulated industries. INE has been assisting the interested states through technical guidance and provision of information.

#### **5. Other Recent Developments**

### *NACEC Council Resolution on PRTRs*

In June 2000, the NACEC council, composed of the top environmental officials of Canada, Mexico and the US, signed a Council Resolution on PRTRs. This Council Resolution, which sets out a vision for all PRTRs, provides an opportunity to help guide the future development of the RETC.

While recognizing that individual countries will design PRTRs to meet their own needs and capabilities, Council Resolution 00-07 sets forth a set of basic elements considered central to the effectiveness of PRTR systems, which include:

- reporting on individual substances;
- facility specific reporting;
- multi-media reporting (releases to air, water, land and underground injection and transfers to other locations for further management);
- mandatory reporting;
- periodic reporting (annual);
- public disclosure of reported data on a facility- and chemical-specific basis;
- standardized database structure to facilitate electronic reporting, collection, analysis and dissemination;
- limited data confidentiality and indications of what is held confidential;
- comprehensive scope; and a
- mechanism for public feedback for continual improvement of the system.

### *Report on barriers to RETC reporting*

With support from NACEC in cooperation with INE, an independent consultant was hired in 2000 to interview a number of Mexican facilities to gain a better understanding of the reasons for the low levels of reporting under the current voluntary system and to identify opportunities for improvement.

The major reason for not reporting releases and transfers cited by the 11 companies interviewed was the lack of an official mandatory standard. Other barriers to completing the RETC cited less frequently were the amount of time required to fill out the form, the lack of data in the requested format and the lack of perceived benefit to the company. Financial resources did not seem to be an important barrier to completing the COA form in these 11 companies. Insufficient training in estimation methods and the lack of INE approved estimation methods were also identified as barriers.

Following are some of the recommendations made by the interviewed facilities to improve COA reporting:

- Recognize all sections of the COA as a legal document for all agencies;
- Add more chemicals to the list, as many of the chemicals used by the companies were not on the current list;
- Develop a list of government approved estimation methods;
- Send the COA form electronically;
- Provide training for companies in filling out the form (interviewed companies were not aware of or had not participated in INE sponsored training courses);

- Standardize responses from INE staff and consultants on how to fill out the form.

Once finalized, the report will be available from NACEC or INE, in Spanish and in English.

*Industry seminars on RETC reporting*

NACEC is providing support for a series of seminars in major cities throughout Mexico to promote improved reporting of RETC data by industry. The events are being organized by a non-governmental group in cooperation with INE, industrial associations and other interested parties, and are intended to assist facilities in identifying potential benefits of and overcome existing barriers to RETC reporting. Insights gained through the seminars will also aid INE in improving its outreach and assistance activities, with a view to increasing levels of industrial reporting under the currently voluntary program.

**Additional Information on the Mexican RETC Program:**

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INE's web site for the RETC on the Internet, in Spanish:  
<[www.ine.gob.mx/dggia/retc/index.html](http://www.ine.gob.mx/dggia/retc/index.html)>

RETC Documents on the Internet, in English:  
<[www.ine.gob.mx/dggia/retc/ingles/ingles.html](http://www.ine.gob.mx/dggia/retc/ingles/ingles.html)>

Semarnat on the Internet: <[www.semarnat.gob.mx](http://www.semarnat.gob.mx)>