



# “PRTRS – new ways to lessen emissions and transfers ”

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*From EPER to PRTR*  
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# **FROM THE AARHUS CONVENTION TO THE PRTR PROTOCOL**

**UNECE Convention on Access to Information, Public  
Participation in Decision-making and Access to  
Justice in Environmental Matters**



# MILESTONES OF THE CONVENTION

**25 June 1998** Adoption of the Convention at the 4<sup>th</sup> Ministerial “Environment for Europe” Conference, Aarhus Denmark. Signed by 39 countries and the European Community

**30 Oct 2001** Entry into force of the Convention

**21 May 2003** Adoption of the Protocol on PRTRs at extra-ordinary meeting of the Parties, within the framework of the 5<sup>th</sup> Ministerial “Environment for Europe” Conference (Kiev, Ukraine)



## ***MATURING LEGAL INSTRUMENT***

# **STATUS OF CONVENTION RATIFICATION**

Albania  
Armenia  
Austria  
Azerbaijan  
Belarus  
Belgium  
Bulgaria  
Cyprus  
Czech Republic  
Denmark  
Estonia  
Finland  
Former Yugoslav  
Rep. of Macedonia  
France  
Georgia  
Greece  
Hungary  
Italy  
Kazakhstan

Kyrgyzstan  
Latvia  
Lithuania  
Luxembourg  
Malta  
Moldova  
Netherlands  
Norway  
Poland  
Portugal  
Romania  
Slovakia  
Slovenia  
Spain  
Sweden  
Tajikistan  
Turkmenistan  
Ukraine  
United Kingdom  
European Community

**TOTAL: 39 PARTIES**



## *THE FIRST PILLAR*

# **ACCESS TO INFORMATION**

### Passive (art. 4) and Active (art. 5) parts

- Any person has access (no need to prove or even state an interest)
- Broad definition of environmental information (art. 2)
- Finite set of exemptions, with restrictive interpretation:
  - public interest to be taken into account
  - Potential effects of disclosure must be adverse



## *Selected features*

# **ACCESS TO INFORMATION (2)**

### Active (art. 5)

- **Transparency and accessibility of information systems**
- **Immediate dissemination of information in cases of imminent threat to health or environment**
- **Sufficient product information to ensure informed environmental choices**
- ***Pollutant release and transfer registers***
- **Increased access to information through Internet**
  - Article 5, paragraph 3

*...each Party to ensure that environmental Information progressively becomes available in electronic databases which are easily accessible to the public through public telecommunication networks*



# LEGAL BASIS OF PROTOCOL IN AARHUS CONVENTION

- **Legal basis: article 5 para. 9 and art. 10, para. 2 (e) and (i) of the Aarhus Convention, requiring each Party**

**“to take steps to establish progressively ... a coherent, nationwide system of pollution inventories or registers on a structured, computerized and publicly accessible database compiled through standardized reporting.” . . .**

**[art. 5, para. 9]**

**... taking into account international processes and developments, including the elaboration of an appropriate instrument concerning pollution release and transfer registers or inventories ....”** **[art. 10, para. 2(i)]**



## DEVELOPMENT of PROTOCOL on PRTRs

- **Sep 2000**: Committee on Environmental Policy (CEP) establishes Working Group on PRTR to develop legally binding instrument for adoption in Kiev
- **Feb 2001 – Jan 2003**: Negotiations over draft protocol take place in PRTR Working Group
- **21 May 2003**: Kiev Protocol on Pollutant Release and Transfer Registers of the Aarhus Convention adopted and signed by 36 countries and the EC at 5<sup>th</sup> Ministerial 'Environment for Europe' conference





# PUBLIC ACCESSIBILITY

**Public access is *fundamental*:**

- **Objective of Protocol: “... to enhance public access to information through the establishment of coherent, integrated, nationwide PRTRs ...”**



# CORE ELEMENTS OF PROTOCOL

**Obligation on each Party to establish a PRTR which is:**

- **publicly accessible and user-friendly**
- **presents standardized, timely data on a structured, computerised database**
- **covers releases and transfers from certain major point sources**
- **begins to include some diffuse sources (e.g. transport, agriculture, small- and medium-sized enterprises)**
- **has limited confidentiality provisions**
- **allows public participation in its development and modification**



## **SOME GENERAL FEATURES**

- **Implies obligations for private sector**
- **Parties required to work towards convergence between PRTR systems (e.g. waste-specific vs pollutant-specific reporting of transfers, use-based vs release-based thresholds)**
- **Co-ordination with other international processes (e.g. IOMC/IFCS, OECD, UNEP, UNITAR, EU, NACEC etc)**
- **Open to non-Parties to Convention and non-ECE States**
- **Own governing body and compliance mechanism**



# **FACILITIES COVERED**

**Facilities covered (annex I) include:**

- **Thermal power stations and refineries**
- **Mining and metallurgical industries**
- **Chemical plants**
- **Waste and waste-water management plants**
- **Paper and timber industries**
- **Intensive livestock production and aquaculture**
- **Food and beverage production**



# POLLUTANTS

**Pollutants covered (annex II) include:**

- **Greenhouse gases**
- **Acid rain pollutants**
- **Ozone-depleting substances**
- **Heavy metals**
- **Certain carcinogens, such as dioxins**

**TOTAL: 86 pollutants**

**N.B. National registers may include additional facilities and substances.**



# **PROTOCOL ON PRTRS IN COMPARATIVE PERSPECTIVE**

## **UNITED KINGDOM**

### **1. England and Wales National Pollutant Inventory (NPI) serves four separate “acts”**

- **Integrated Pollution Prevention and Control Directive (IPPC)**
- **Pollution Prevention and Control (PPC)**
- **Radioactive Substances Act 1993**
- **Sewage treatment works in England subject to a Ministerial Direction under the Water Industries Act**



- **PI Covers 170 chemical substances and 65 radioactive substances**
- **information is available online, and may also be accessed through *In Your Backyard* Web mapping site, along with environmental monitoring data**

**2. Scotland's Pollutant Release Inventory covers 173 substance released to air and water. Information about the individual pollutants, the sites that returned data and background information is accessible online by post code, pollutant and company name**

**3. Northern Ireland lacks a 'national' pollutant register**

***UK PRTR integration being studied in context of reporting burden reduction, yet with enhanced public access and contextual features***



## CANADA

- **National Pollutant Release Inventory (NPRI)** provides Canadians with facility specific information regarding on-site releases and off-site transfers of 268 substances listed on the inventory.
- **GREENHOUSE GAS EMISSIONS** initially reported as separate aggregates; Canada reportedly moving toward facility-based GHG reporting
- **Reporting of chemically-specific wastes**





# CANADA

- **Environmental and health-based search  
(Communities Portal Search)**  
Search for National Pollutant Release Inventory data by environmental and health issues in communities across Canada
- **Interactive On-line Mapping tool**



# JAPAN

- **Japan's PRTR based on the Law Concerning Reporting of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management; System came into effect in 2001**
- **Designates 354 chemical substances as Class I Designated Chemical Substances, which have an annual production and import volume of 100 tons or more and are widely present in the environment. There are 81 Class II Designated Chemical Substances. These are not as prevalent, with annual production and import volumes of one ton or more.**
- **Designates chemical substances on the basis of their threat of harming human health, degrading plant and animal habitats and growth, and destroying the ozone layer**



## UNITED STATES

**U.S. Environmental Protection Agency (EPA) Toxics Release Inventory (TRI) system, adopted in 1986 under the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313**

- **provides detailed information on releases to the environment and related industrial activities**
- **Other parts of the EPCRA make industry responsible for informing communities about the location and quantity of chemicals stored on-site to state and local governments in order to help communities prepare to response to chemical spills and similar emergencies; hence, TRI part of larger chemical management strategy**
- **Decentralized collection of data by (some) States**



## USA (2)

- In 1990, the Pollution Prevention Act required that additional data on waste management and source reduction activities be reported under TRI
- Still later, EPA, expanded the lists of substances covered under TRI to some 650
- *Burden Reduction* rule-making process under review, BR would eliminate annual reporting and raise reporting thresholds for some substances



## USA (3): SOME DIFFERENCES

### **TRI includes information on**

- **the efficiency of waste treatment**
- **pollution prevention and chemical recycling initiatives**
- **provides the public with data for on-site waste management of chemicals**
- **TRI can be used as a starting point in evaluating exposures that may result from disposal or other release and other waste management activities which involve toxic chemicals**



# NATIONAL AND STATE SYNERGY

- **1986 CALIFORNIA Safe Drinking Water and Toxic Enforcement Act (known as 'Proposition 65')** – a separate RTK instrument requiring active dissemination of cancer/reproductive toxics information in products
- **Shifts regulatory burden to potential polluters, *unless emitters can show that the level of exposure is low enough to pose 'no significant risk'***



## SUCCESS STORY

**For the 10-year period from 1988 to 1997, atmospheric emissions of some 260 known carcinogens and reproductive toxins from *TRI*-reporting facilities have been reduced by approximately 85% in the state of California, and by some 42% in the rest of the country (*i.e.*, for all chemicals listed in California as known to cause either cancer or reproductive toxicity *and* reported as air emissions under *TRI* )**

From P. Sand (2002)



# EXPLAINING SUCCESS

Researchers variously emphasize the innovative use made of

- electronic communications via the Internet, by TRI (Jobe 1999)
- reversal of the burden of proof for exemptions, by *Proposition 65* (Barsa 1997)
- enforcement by citizen suits, under both schemes (Grant 1997; Green 1999; Graf 2001, 669)
- standardized data, facilitating comparison and ‘performance benchmarking’ (Karkkainen 2001)
- ‘Reputational’ effects of such competitive ranking on a firm’s behaviour (Graham 2001, 8; Graham & Miller 2001).

From Fung & O’Rourke (2000), cited in P. Sand (2002)





## **FURTHER HYPOTHESES**

- **Feed-back of information to process managers / operators**
- **Neighbourhood review and pressure**
- **Good Neighbour Agreements**
- **Enhancement of markets for alternative**
- **Improved regulatory performance by government**
- **Combining health risk information with PRTRs increases public awareness and application of PRTR systems**



# POTENTIAL IMPACTS ON BUSINESS ENVIRONMENT

**Greater transparency and accountability contributes to sustainable economic development**

- improved capture of environmental and social externalities of economic activities
- Most efficient use of chemical inputs
- enhance investment climate, supports a level playing field
- Potential decrease in social conflict
- Potential decrease in employee medical costs; plant decommissioning liability costs
- added benefits to businesses learning to operate in the “Information Society”
- Commercial application of expanded access to information (geospatial platform for disseminating environmental information)
  - ◆ Applications to banking, insurance, property development etc



# NEXT STEPS FOR PROTOCOL

- **Working Group on PRTRs established in Kiev to prepare for entry into force**
- **Setting up the ‘institutional architecture’: rules of procedure, compliance mechanism, financial arrangements and technical assistance mechanism, international cooperation and reporting (SAICM, ICCM etc)**
- **Preparation of technical guidance on implementation**
- **Next-step issues:**
  - \* **Storage**
  - \* **On-site transfers**
  - \* **Cooperation with other MEA reporting instruments (e.g. Stockholm POPs Convention)**
  - \* **Promotion of convergence among PRTR systems in region and globally**



# POSSIBLE FUTURE APPLICATIONS

- **Pan-European Environment and Health Information System (Environment-for-Europe Ministerial Conference / WHO Europe)**
- **Commercial property management information systems (“due diligence” research, e.g. EA reports)**
- **Integration into Global Reporting Initiative etc**
- **SAICM national performance tracking**
- **Convergence to global PRTR system**





**MORE INFORMATION  
AVAILABLE ON THE AARHUS  
CONVENTION WEBSITE:**

**<http://www.unece.org/env/pp/prtr>**

