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Meeting of the Signatories to
the Convention on Access to Information,
Public Participation in Decision-making and
Access to Justice in Environmental Matters
(Second meeting, Dubrovnik, Croatia, 3-5 July 2000)
(Item 4(b) of the provisional agenda)

POLLUTANT RELEASE AND TRANSFER REGISTERS
Report on the first meeting of task force

1. The first meeting of the task force on pollutant release and transfer registers (PRTRs) took place in Pruhonice, Prague, Czech Republic, on 21-23 February 2000. It was hosted by the Government of the Czech Republic.

2. Experts designated by the governments of Albania, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Czech Republic, Germany, Hungary, Ireland, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Netherlands, Norway, Poland, Republic of Moldova, Romania, Slovakia, Slovenia, Sweden, Turkmenistan, United Kingdom and United States of America; and by the European Commission attended the meeting. Representatives of the United Nations Environment Programme (UNEP) attended. The Organisation for Economic Co-operation and Development (OECD) was also represented. The following non-governmental organizations were represented: Atmoterm Ltd., Ecology and Environment, Inc., Eco-Pravo Lviv, European Chemical Industry Council (CEFIC), European ECO Forum, Friends of the Earth (United Kingdom), Green Spider Foundation, Hungarian Environmental Management and Law Association (EMLA), Interactive Health Ecology Access Links (IHEAL Network), International Campaign for Responsible Technology, International Union of Food, Agricultural, Hotel,

Restaurant, Catering, Tobacco and Allied Workers’ Associations (IUF),

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Polish Environmental Law Centre, Regional Environmental Center for Central and Eastern Europe (REC), Russian Information Center "Volgograd-Ecopres", Slovenian Society for Sustainable Development (GAJA), Union of Industrial and Employers' Confederations of Europe (UNICE) and World Resources Institute. All participants took part in a personal capacity.

3. The meeting was chaired by Mr. Karel Blaha (Czech Republic). Mr. Willem Kakebeeke (Netherlands), Chairman of the Meeting of the Signatories to the Convention, served as Vice-Chairman.

4. The Government of Italy provided financial support through the UN/ECE Trust Fund for Assistance to Countries in Transition (TFACT) to facilitate the participation of representatives from countries in transition and from non-governmental organizations (NGOs). REC provided financial support to several government and NGO experts from central and eastern Europe for their participation through its US/EPA-funded project.

I. REVIEW OF PAST AND ONGOING ACTIVITIES

5. The representative of the World Resources Institute informed the meeting of the internationally coordinated activities on PRTR stemming from the United Nations Conference on Environment and Development (UNCED) which had resulted in the forming of the Intergovernmental Forum on Chemical Safety (IFCS) and the Inter-Organisation Programme for the Sound Management of Chemicals (IOMC). The representative of OECD described the past and ongoing work undertaken by OECD in the field of PRTRs, including the multi-stakeholder process which had resulted in the Guidance Manual for Governments on PRTRs. The representative of UNEP described the work being undertaken by both UNEP and the United Nations Institute for Training and Research (UNITAR) to promote PRTRs in various parts of the world, including in eastern Europe.

6. The meeting was informed that the European Commission's proposal to establish a European pollutant emissions register (EPER) under the EU Directive on integrated pollution prevention and control had recently been accepted by a committee of EU member States. The representative of the European Commission described how the EPER would function, and the Swedish representative presented the Swedish Environmental Protection Agency's study which had provided the basis for the EPER proposal.

7. The task force secretariat for the Czech Republic presented the interim results from the survey of countries' progress in applying the provisions of article 5, paragraph 9, of the Convention. By the time of the meeting 17 countries had responded to the questionnaire. Countries that had not completed the questionnaire were invited to do so by 23 March 2000. It was agreed that the final results should be annexed to this report (see annex I).

8. REC presented the interim results from a project aimed at assessing the state of PRTRs and other reporting systems in central and east European countries, including more detailed information on three of these (Czech Republic, Slovakia, Hungary).

9. The representative from the United States Environmental Protection Agency (US/EPA) gave a presentation on the design and the achievements of the United States Toxics Release Inventory. It was demonstrated that this well-established PRTR system had fostered substantial reductions in releases and transfers of reportable chemicals over the past decade. The representative from Canada presented information on Canada's National Pollutant Release Inventory. In both these presentations, it was emphasized that a large part of the successes of the United States and Canadian PRTRs could be attributed to the involvement of the public and industrial stakeholders. Industries in both countries had recognized the value of annual PRTR data and examples were provided of how companies had demonstrated to the public positive trends in pollution prevention and reduction.

10. Country presentations were given by experts from Ireland, Slovakia, Poland, Albania, United Kingdom, Netherlands, Bosnia and Herzegovina, Ukraine (NGO representative) and Lithuania. These reports, as well as those given by the international organizations and the interim results of the lead country's survey and the REC project, revealed that good progress was being made to develop PRTRs. Those States without an established PRTR reported that they were in the process of developing such a system. Extensive work was being undertaken by UNITAR, UNEP, REC and other international organizations to assist the further development of PRTRs.

11. The representative from IUF reported that trade unions had not been particularly active internationally on the PRTR issue but were likely to become more so, particularly in relation to the use of PRTR information to reduce exposure of workers and their families to toxic hazards, to strengthen workers' right to know and to increase the role of workers in workplace initiatives to reduce releases and transfers. The representative of CEFIC, also representing UNICE, introduced the CEFIC Health, Safety and Environmental Reporting Guidelines under the Responsible Care programme, a voluntary activity of the European chemical industry. He argued that increased reporting requirements through PRTR systems might not necessarily result in improved environmental performance and that the quantitative approach embodied in the PRTR system might not take account of the actual impacts on environment or health.

12. The representative of IHEAL gave a presentation demonstrating the role that NGOs could play in simplifying, packaging and 'marketing' information,

especially through the deployment of electronic access, Internet communication and geographic information systems (GIS). Several examples of Internet digital mapping projects developed cooperatively by NGOs and governments were shown, including the Czech REZZO system (www.iheal.org).

II. PREPARATION OF FURTHER STEPS

13. The meeting welcomed the discussion paper prepared by the lead country as a useful basis for the consideration of possible further steps. It was agreed that most of the important options and issues concerning the development and promotion of PRTRs under the Convention had been addressed in the paper. The paper was revised during the meeting to reflect comments made in the course of the discussion. The revised version is attached at annex II.

14. The ECO Forum circulated a paper. A representative gave a presentation which noted the importance of the public right to know, the use of PRTR data as a tool for moving towards sustainable development, and the need for a legally binding instrument. It was proposed that a PRTR should incorporate elements of the EPER but must have a multimedia approach including releases to land and waste transfers and disposal.

15. The meeting acknowledged the considerable amount of international activity on PRTRs which had resulted from the United Nations Conference on Environment and Development /Agenda 21 process and which was being undertaken within the framework of IFCS and IOMC, notably by OECD, UNITAR and UNEP, and the desirability of cooperation and avoidance of duplication of effort. In this regard, the OECD Guidance Manual for Governments on PRTRs was considered to be an important reference point in discussions of PRTR-related activities under the Aarhus Convention.

16. The expected imminent adoption of the European Commission’s proposed EPER was recognized as a highly significant development and an important step in the direction of a PRTR for EU and eventually EU accession countries, particularly in view of its legally binding character. Some participants from EU countries raised the importance of consistency with the terms of the EU proposal. However, several participants noted that it did not contain all the elements of a PRTR as set out in the OECD Guidance Manual for Governments or as referred to in article 5, paragraph 9, of the Convention and preferred to regard it as only a part of a PRTR.

17. It was generally agreed that the development of an instrument on PRTR under the Convention should be a priority following its entry into force, and that the necessary preparations should be undertaken. The possibility of linking the preparation of such an instrument with the fifth Ministerial ‘Environment for Europe’ Conference (Kiev, Ukraine, 2002) was mentioned.

18. Most participants felt that such an instrument should be legally binding in character, and that a non-binding instrument would offer less protection of the citizens' rights which the Convention aimed to guarantee. The meeting requested the ECE secretariat to prepare a note for the Meeting of the Signatories explaining the implications of the various possible instruments (e.g. protocol, annex, decision of the Parties, guidelines).

19. Several participants referred to the possibility of PRTR systems being developed incrementally, in a step-by-step fashion, taking into account both the need to eventually achieve a comprehensive, integrated system and the difficulty in setting up a PRTR system from a position of having no reporting mechanism.

Substances to be reported

20. It was agreed that an instrument developed under the Convention should include a minimal list of chemicals or substances to be reported on a mandatory basis, which could be extended or modified at a later stage. It was noted that this did not preclude the development of more extensive lists on the national level. For this purpose it was proposed that chemicals already listed in international agreements should be given priority. Several participants recommended that the list should as a minimum cover those substances listed in the EPER proposal. Attention was drawn to the fact that inconsistency with the EPER list would create problems for those Parties for which compliance with EPER is mandatory. It was suggested that a compendium of the various lists of priority chemicals used in different instruments and systems would be a useful reference tool in subsequent discussions.

21. It was generally agreed that reporting parameters should be individual substances wherever possible, rather than groups of chemicals (e.g. volatile organic compounds). In addition, more complex parameters (e.g. particulates, biochemical oxygen demand, toxicity measures) could be used.

22. In determining which chemicals should be included and the corresponding thresholds it was felt that there should be public and stakeholder involvement in the decision-making processes on them. Attention should be paid not only to the number of substances reported but also to their impact on the environment and the reporting thresholds set. Occupational health issues should also be taken into consideration.

23. It was noted that having a large number of reportable chemicals did not necessarily entail that any given company would need to report on large numbers of chemicals (e.g. in the United States, where there were 600 reportable chemicals, the average number reported on by a company is 3.5), and also that many reportable chemicals were not reported on because thresholds were not exceeded by any company. However, it was also pointed out that industry would still have the burden of establishing that its releases and transfers of these chemicals fell below the thresholds in such cases.

24. The question of whether GMOs should be included on such a list was raised and it was agreed that this should be kept as an option for further discussion, noting that there were differing views among the participants on the issue.

Range of bodies required to report

25. It was recognized that a PRTR instrument would impose reporting obligations on a certain range of facilities. The importance of the integrated

reporting by each individual facility was agreed upon. The meeting supported the inclusion of bodies on the basis of the activities that they were engaged in rather than on the basis of whether they were privately or publicly owned. It was noted that releases and transfers from small and medium-sized enterprises (SMEs) could represent a significant source of overall releases and transfers and agreed that consideration should be given to the modalities of including them. It was also agreed that the issue of whether a PRTR developed under the Convention should address diffuse sources of pollution should be discussed.

Reduction targets and measures

26. There was general agreement that reporting on reduction targets and measures, and other relevant information (e.g. expected changes in production process), should be a part of any PRTR system established under the Convention.

Reporting frequency

27. It was agreed that reporting should be periodic. An annual reporting approach was favoured by the majority of participants, including all those from the newly independent States. Furthermore, it was expected that there would be no conflict between the proposed three-year EPER reporting cycle and more frequent national reporting by the member States. Some participants were in favour of a requirement that certain substances should be reported more frequently than annually (e.g. Poland requires reporting every three months in some cases), while others felt that a three-year reporting cycle would be more appropriate as a starting point.

Media to which substances are released (air, water, land, etc.)

28. A multimedia approach, covering releases to air, water and land, including off-site transfers of waste, was favoured by the majority of participants. The inclusion of on-site transfers was considered to be important by many participants, especially those from the newly independent States, and it was recognized by all participants that this was an issue needing further discussion. It was noted that the inclusion of off-site transfers was important for the purpose of monitoring domestic and transboundary movements of waste. Some participants felt that further discussion on the application of this principle to off-site transfers was needed (e.g. in cases where waste water was transferred to a waste-water treatment plant). Others felt that there should be transparency with respect to both on-site and off-site transfers.

Products, energy and water use

29. There was no consensus on whether information on releases and transfers through products, and on energy, water and other resource use, should be required under a PRTR. Some participants felt that these elements were a logical part of an integrated system which would promote more sustainable development, and that these issues were of concern and interest to members of the public. Others felt that their inclusion could overburden a reporting system in the initial stage of establishing a PRTR. However, most participants felt that in the longer term all these issues were suitable for inclusion, and were in favour of keeping them on the agenda for future discussions. It was noted that many annual company environmental statements, which were made public, already contained data on energy and water use. The importance of including information on chemicals in products in a given PRTR system would depend on the selection of chemicals, some of which were largely released through products.

Public-access rights and confidentiality

30. It was recognized that the issue of public access to the reported information would be central to any PRTR developed under the Aarhus Convention and that, in this respect, the information provisions of the Convention would be applicable, including the provisions relating to exemptions. The difference between the public having a right of access to information and the active dissemination of information to the public was emphasized. It was generally agreed that the significance of the issue of commercial confidentiality was overstated based on the very small numbers of exemptions either requested or granted in existing national PRTR systems.

Data structuring and validation

31. There was agreement on the importance of data being managed on a computerized centralized database using a common reporting format to give standardized data. It was noted that changes to the database were not easy to implement, and that planning accurately from the start was therefore important. The meeting agreed on the importance of data being managed so as to maximize accessibility to the public. Electronic access to PRTR data and representation of data through GIS mapping were recognized to be useful tools for increasing accessibility.

32. The accuracy of reporting data and the need for validation methods were felt by some to be important issues, though others felt that data inaccuracy had not been a problem in practice. Deliberate falsification of data was regarded as a serious matter calling for appropriate sanctions.

Resources

33. It was noted that the discussion paper had not addressed the issue of costs and benefits of PRTRs. The meeting recognized that successful implementation of PRTR systems in countries in transition, especially during the initial stages, would depend greatly on the availability of appropriate technical and financial assistance. It was also noted that NGOs played an important role in reducing the costs of dissemination of information and, more generally, the costs of implementation of PRTR systems in their countries.

III. OTHER MEASURES

34. The meeting welcomed an offer by the lead country to develop an information archive of PRTR materials, to be made available both on CD-ROM and a Web site. This would include a collection of ‘best practices’ as well as necessary software for browsing and viewing files. Experts participating in the meeting were invited to contribute their expertise to the design and content of the archive.

35. UN/ECE was invited to establish a Web page covering PRTR issues and in particular the activities of the task force. The task force secretariat for the Czech Republic the offered to provide support.

36. To facilitate the further work of the task force, the lead country urged participants to make efforts to improve networking and communication on PRTR issues, especially between those involved in the sound management of chemicals and those involved in the public awareness and right-to-know issues.

Annex I

SURVEY OF PROGRESS IN THE IMPLEMENTATION OF POLLUTANT RELEASE AND TRANSFER REGISTERS (PRTR) IN ECE MEMBER STATES

Prepared by Ondrej Velek (Environmental Partnership for Central Europe) and Helena Knappova (REC)
on behalf of the Czech Republic

1. Governments in many UN/ECE countries have established systems that collect and publicly release PRTR data. OECD-driven processes in such UN/ECE countries as the United States of America, Canada, the United Kingdom (England and Wales) and non-UN/ECE countries such as Australia, Mexico and Japan have helped develop PRTR systems. In the European Union, the European pollutant emission register (EPER) is currently being introduced and is expected to be developed into a full PRTR system in the near future. Non-EU countries that are members of UN/ECE such as Switzerland and Norway are working towards a PRTR system. Some PRTR initiatives spurred by UNITAR are under way in the Czech Republic, Slovakia and Hungary, as well as in other central and east European countries. UNEP Chemicals is active in some newly independent States in the context of its persistent organic pollutant (POPs) and PRTR projects.

2. A questionnaire originally developed for OECD member countries was used to gather information on measures taken with a view to achieving the objectives set out in article 5, paragraph 9, of the Aarhus Convention.

3. The following brief overviews are based on the responses received by the end of March 2000. The responses are accessible in full on the lead country's PRTR task force Web page (http://www.ecn.cz/prtr-tf).

SUMMARY OF COUNTRY RESPONSES

ALBANIA

4. The Albanian National Protection Agency proposes to build the PRTR system on current reporting systems, which are mandatory and cover releases and transfers as well as raw materials consumption. The Environmental Inspectorate is to serve as the PRTR centre. The PRTR legislative framework is established by the Law on Environmental Protection (1993), a ministerial decision (1995), and a regulation of the Ministry of Health and Environment (1998). Several lists of polluting substances have been prepared. The currently collected and aggregated data are distributed via the State Environmental Report on paper and on the Internet. The PRTR stakeholder process is under development.

AUSTRIA

5. The Austrian Federal Environmental Agency is preparing a PRTR-like system in keeping with the European pollutant emissions register. The system is scheduled to be in place by the end of 2000, with the reporting period beginning on 1 January 2001 and reports available by 28 February 2002. Formal consultation has begun with operators, authorities, the Chamber of Commerce, the Chamber of Labour and the Ombudsman for the Environment. Data will also be posted on the Internet (probably in 2003).

BELGIUM

6. The Flemish Environmental Agency has had water and air reporting systems in operation (mandatory for water, partly mandatory and partly voluntary for air) since 1992 connected with the permitting system. The lists of facilities and emission thresholds have been drawn up. Detailed emission estimation guidelines have been prepared for reporters. Data for the first reporting year, 1993, were sent to the authorities by April 1994. Air data are also on the Internet, water data are used in the GIS system, are aggregated and available in paper form. In future, all PRTR data will be placed on the Internet.

BULGARIA

7. The PRTR system in Bulgaria has been developed more as part of its monitoring system than to provide access to environmental information. Current legislation for monitoring and reporting is based on air, water, waste and chemical substance laws. Several authorities such as the Ministries of Water and Environment, of Health and of Agriculture, the National Statistical Institute and the municipalities are responsible for enforcement and compliance with monitoring requirements. It is proposed that future PRTR will be mandatory, based on self-monitoring and covering several hundred substances. Date on diffuse sources (transport and agriculture) and descriptive data on raw materials, fuel and energy consumption are to be reported. Due to the complex and inter-agency character, the Bulgarian PRTR system will be developed step by step.

CANADA

8. The Canadian National Pollutant Release Inventory (NPRI), a mandatory system, has been in operation since 1993, with the first deadline for reporting in June 1994. During six reporting periods the list of substances has been gradually extended (178 in 1993, 246 in 1999 and 268 proposed for 2000). Thresholds are based on 20000 work-hours, 10 tons of a chemical manufactured, processed or otherwise used at 1% concentration, unless generated as a by-product (must be reported at any concentration). For some

chemicals (PTBs) this limits will change significantly in 2000. Private and public facilities are subject to reporting. Information on accidents, recycling activities, and pollution prevention practices are obligatory; other types of information such as activity index/production ratio are provided on a voluntary basis. A Multi-Stakeholdere Advisory Committee (MSAC) was formed for the initial design of the NPRI. A working group on substances has been active since then. The support given to reporters and users is vast - data are distributed as fact sheets, CD-ROMs are provided on request, data are provided on the Internet.

CZECH REPUBLIC

9. Since autumn 1999 the Ministry of Environment has been preparing a PRTR information system together with an integrated pollution prevention and control (IPPC) law - IPPC/PRTR "Integrated Pollution Register". According to the Ministry's proposal, the range of reporting facilities, the list of substances and the PRTR functions are to be broader than those of the IPPC-EPER. The IPPC/PRTR law should also establish a new environmental (permitting) agency. Pilot feasibility projects of PRTR reporting took place in 1994-1996. In 1997 a multi-stakeholder ministerial PRTR commission was created to prepare a framework for a PRTR law. In the State Environmental Policy in 1998, it was announced that the PRTR-like system based on currently available polluting and transfer data would be prepared by 2000. Under the proposal for the new IPPC/PRTR law, the first reporting year would be 2003. For the mandatory PRTR system, reporting for about 130 substances is proposed together with a mechanism for adding/deleting substances from the list and lowering thresholds for substances of concern. Electronic reporting and active dissemination of data on the Internet are being tested. The PRTR system is intended to integrate, improve and, to some extent, simplify the current reporting burden of operators under the air, water and waste management laws.

DENMARK

10. The Danish Environmental Agency has been operating several pollution and transfer registers (marine, air, water, waste) since 1989. A new integrated mandatory PRTR-like system will be developed parallel to the IPPC-EPER. There have been 9 reporting periods for water pollution under the Aquatic Environmental Plan since 1987. Danish industry has requested that the Danish PRTR should work together with the Danish Law on Green Accounts (1995), which requires corporate environmental reporting on environmental performance (also available on the Internet). There are 17 data centres under the Ministry of Energy and Environment. They collect data on air quality, energy, groundwater, waste and recycling. Pilot projects on computerized municipal information systems were organized in 1994/95 (local authorities collected data from 38 enterprises) and are planned for 2001. The list of PRTR substances also reflects the criteria of the List of Undesirable Substances. GIS technology and the Internet are used for data processing and dissemination. All PRTR stakeholders including local authorities were invited to participate in discussions held in 1997 and again in 2000.

FINLAND

11. Regional environment centres, the Ministry of Environment, and the Finnish Environment Institute operate a mandatory PRTR-like system, which is under constant development. The main focus is on supervising compliance by

facilities. PRTR-type legislation stems from the Water Act 1966, the Air Pollution Emission Act, 1982, and from the Waste Act, 1993. The first reporting period was from 1988 to 1997 and annual reports of the previous year are requested by the end of May. PRTR-type data are presented together with permitting data in GIS format. Environmental authorities check the relevancy of chemicals from the list for each permit period. Aggregated data are disseminated as environment and emission reports and information bulletins. The inclusion of emissions from agriculture and other diffuse sources is planned.

GERMANY

12. The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety intends to implement the European pollutant emission register (EPER). The first reporting period of the German pollutant emission register is 2000-2002 with the deadline set for June 2003. The integration of the German pollutant emission register with GIS is under consideration. A pilot study is under way and a national workshop on the German register is to be held in 2000/2001. Data on pollution will also be posted on the Internet.

HUNGARY

13. Hungary is developing a PRTR System and PRTR legislation. The draft is expected to be ready by 31 December 2000. The legislation is scheduled to be approved for 2001. The Ministry of Environment manages the development of the PRTR system. A PRTR Task Force was established in January 2000 and a feasibility study was carried out on the legal/institutional framework of the PRTR system. Some PRTR-related legislation has been passed in connection with legislation on other issues, and the data provided by them can be used to a certain extent. These laws include: the Decree of 1986 on the protection of the air; the Decree of 1993 on the protection of the stratospheric ozone layer; and the Decree of 1984 on the fees for discharges into surface waters. A draft list of chemicals subject to the PRTR has been compiled. The PRTR system will be integrated with existing emission registers for air, water pollutants and hazardous wastes. At a future date, submissions under provisions of Directive 96/61/EC (IPPC) will also be taken into consideration. Annual summary reports with PRTR data will be available in paper and electronic form on the Internet.

IRELAND

14. In Ireland industrial facilities must submit a Pollution Emissions Register (PER) Report as part of their integrated pollution control (IPC) licence under the Environmental Protection Agency Act, 1992. The PER is based on a mass balancing methodology, which provides important information on material flows within a facility and on the eco-efficiency of the facility

with respect to reportable substances. It is expected that the IPPC Directive will be transposed into Irish law in late 1999/early 2000. This means that the existing PRTR will be modified to bring it into line with the EU EPER. IPC licensing is being gradually introduced in different sectors. The chemical sector was the first to be subject to IPC licensing, in 1994; therefore, the chemical sector was the first to submit PER reports. Other sectors (e.g. surface coatings) applied since 1994 and most have to provide PER reports annually. Finally, the remaining sectors (e.g. energy, minerals) are required to apply for IPC licences between now and 2002. PER is managed by the Environmental Protection Agency. The results of PER reports are published annually in the report on IPC licensing and control, which is available on the Agency's Web site. The PER list of chemicals is based on list I and list II substances (EC Directives) and on annex II to the Council Directive on hazardous waste.

LATVIA

15. Latvia is not developing a PRTR system at this time. However, the institutional capabilities of its Environmental Data Centre, State Environmental Inspectorate, State Labour Inspectorate, National Environmental Health Centre, State Sanitary Inspectorate and Regional Environmental Protection Boards have been evaluated for this purpose.

16. Environmental information is available to the public through statistical reports and on-line electronic databases. Latvian legislation provides for the availability of raw environmental data by electronic means, which can be considered as a positive aspect for the introduction of PRTR. The application of geographic information systems, which are widely used for reporting environmental data, is also considered as an advantage.

17. However, a discussion involving interested and affected parties on whether to introduce a PRTR system is to take place in March 2000. A chemical substances register has been established recently and a list of potentially harmful chemicals for PRTR is under consideration. The quality of the data reported by the public facilities is not good. Various reporting and dissemination systems are often not compatible – the introduction of PRTR would make the reports more transparent and the data more reliable.

LITHUANIA

18. The Environmental Statistics Information System managed by the Ministry of Environment satisfies the requirements of PRTR to a certain extent. It contains information about specific substances, major sources of specific chemical releases, point sources, diffuse sources and other sources of pollution. This system provides restricted access for interested parties and

the public. Only aggregated data are disseminated by reports, newsletters, leaflets and on the Internet. The legislation is based on Order of the Government No. 1175, 1999, ”Presentation of environmental information for public”; Environment Protection Department Order No. 151, 1991, ”Order of national statistical accountability”; and Environment Protection Ministry Order No. 150, 1996, ”Form of National statistical accountability”. ”A chemical inventory at national level” pilot project was carried out in 1998-1999. The results will be presented soon. The Ministry of Environment will prepare and publish a general reference book on public authorities possessing environmental information by the end of 2000.

NETHERLANDS

19. The Ministry of Housing, Spatial Planning and the Environment in 1974 established a voluntary PRTR system. From 2000 it will be mandatory (following the EPER). The first year for reporting was 1998, with a reporting deadline of 1 April 2000. About 120 substances are on the list. The inclusion of waste transfers is being discussed. Mandatory thresholds for about 300 major point sources and voluntary reports for branches are defined - the scope of reporters is constantly being adapted. The system is not yet integrated with all international reporting obligations. Also data from diffuse sources (households, transport, agriculture, small and medium-sized enterprises, and natural sources) are handled in the Arcingo GIS. The modification and implementation of PRTR is transparent - expert working groups consisting of key stakeholders report to the public via the Internet. Detailed PRTR data are available on request. Aggregated data are available in paper form and via the Internet (a new data warehouse will be in place by the end of 2000).

NORWAY

20. Norway operates a mandatory PRTR-type system called INKOSYS (INdustry KOntroll SYStem). PRTR data are accessible to the public, but not actively disseminated. The reporting conditions are set in a permit, in accordance with the Pollution Control Act, § 11, of 1981. The first reporting period was from 1 January to 31 December 1992, and the deadline for reporting was 1 March 1993. The Norwegian Pollution Control Authority's internal control system has been designed to standardize and increase the efficiency of the emission reports submitted by industrial enterprises. Only enterprises with a current discharge permit granted by the Norwegian Pollution Control Authority are required to report within the system. All enterprises with emissions of any significance must submit reports to receive permits, either to the Norwegian Pollution Control Authority (some 500 enterprises) or to the County Authority (some 200 enterprises). The information collected is used for further reporting if suitable (also to CORINAIR). Consultations with affected

and interested parties in 1992 were limited, but consultations with industry, environmental groups and media took place in 1999. The list of chemicals has grown gradually since 1992 with increasing knowledge of industrial pollution.

REPUBLIC OF MOLDOVA

21. The Ministry of Environment and Territorial Development is preparing a project proposal for the development and implementation of a mandatory PRTR system, which will be integrated with existing information databases and GIS. The consultation process with stakeholders (State Ecological Inspection, National Institute of Ecology, NGOs) has begun. A list of PRTR substances reflecting dangerous properties, long-range transfers and international obligations will be considered. Lists are usually modified by ministries (Environment, Health, Agriculture, Industry). All media and all transfers will be covered; diffuse sources (transport and agriculture) are under consideration. PRTR and aggregated data will also be disseminated via the Internet.

SLOVAKIA

22. A PRTR system is currently under development though it does not fully comply with the international norms. This system is based on existing national legislation and integrates all suitable and available data on releases to air, water and in the form of waste. Information on transfers is limited. Slovakia’s current PRTR-like system uses a mandatory approach with some voluntary reporting. The Chemical Safety Centre of the Institute of Preventive and Clinical Medicine manages the current system and processes the raw data. The collection of data is the responsibility of the Ministry of Environment and others. No agency is legally bound to disseminate the data. Therefore, dissemination is still inadequate. A test study in 1998 pointed out that legislation needed to be changed. The data in the current system are accessible to the public at the Office for Public Relations of the Ministry of Environment and in publications of the Ministry of Environment. Current PRTR-like data will be available on the Internet in 2000.

SLOVENIA

23. Comprehensive legislation concerning releases to air, water, soil and transfers of waste is in place and the Ministry of Environment and Spatial Planning intends to introduce the mandatory EU reporting system (EPER). In addition, an Intersectoral Commission for hazardous substances (set up in 1997) has established a multi-stakeholder framework for developing a PRTR. The current reporting systems are integrated in the framework of the European Environment Information and Observation Network and in cooperation with European Environment Agency (EEA). Available emission data are used for the national environmental action programme (NEAP), environmental performance

reviews and the State-of-the-Environment Report.

SWEDEN

24. In accordance with a governmental decision, the Swedish Environmental Protection Agency is preparing a mandatory PRTR system to be in force by January 2001 with the first data reported by April 2002. The purpose of the PRTR is to disseminate information on releases and transfers from specific activities, to monitor the implementation of the Environmental Quality Objectives and to integrate data for international reporting obligations. GIS and Internet technologies are used for data management. The Swedish Chemical Inspectorate is cooperating in the development of the PRTR, other stakeholders were invited into the consultation process. Voluntary pilot studies were carried out in 1994. The list of chemicals will be compiled reflecting the dangerous properties of substances, products on the National Product Register, and international reporting obligations. Different reporting thresholds and techniques are proposed for large facilities and small and medium enterprises. PRTR will also contain information about the amounts of chemicals used/produced and transfered via goods ("product stream"). Data will be available via the Agency’s Web site with links to relevant sources of information.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

25. The Ministry of Environment is preparaing new legislation on a pollutant inventory, a catalogue of data sources, and an environmental information system database.

TURKMENISTAN (information drawn from an article by Ms. Victoria Elfimova, Centre of Environmental Information)

26. In April 1999 Turkmenistan ratified the Aarhus Convention and a special State Commission was formed for its implementation. A National Programme on Environmental Protection supported by the United Nations Development Programme (UNDP) helped to prepare a national report on the environment, to organize environmental education campaigns and to regularly disseminate environmental information. The Institute of Statistics issues hydrometeorological data. The Centre for Environmental Monitoring of the Ministry of Nature Protection is responsible for the management of data on air and water pollution, for the network of regional centres and for pollution data dissemination.

UNITED KINGDOM (ENGLAND AND WALES)

27. The Environment Agency for England and Wales has already set up a Pollution Inventory for integrated control processes - large industry (ICP), and is considering further developing it to cover smaller industry, large sewage treatment works and landfill sites. The system is mandatory. The

Pollution Inventory will form the basis for reporting under article 15 of the IPPC Directive. Regulations for environmental reporting were based on the Environmental Protection Act of 1990 for large industrial processes. New regulations could be put in place under existing legislation or under the Pollution Prevention and Control Act of 1999. The first reporting period was from 1998 to 1999. Reporting of IPPC processes is not subject to IPC control in 2001 and 2002 reporting. The Pollution Inventory developed from the previous Chemical Release Inventory (CRI). The main change was the introduction of a standard list of substances to air, controlled waters and sewers that industry should report on. Data are available on the Internet and the Agency has carried out an information campaign, including the publication of a glossy leaflet. For those with no Internet access the Agency provides an information service through its free telephone helpline. The United Kingdom will use part of its existing system to meet EU requirements.

UNITED STATES

28. The Toxic Release Inventory (TRI) was launched in 1986 under the Emergency Planning and Community Right-to-Know Act. Since the first reporting year (1988) there have been 12 reporting periods. The central objective of TRI is to ensure the community’s right to know. Facilities covered by the scheme must currently report each year on releases to air, water and soil and wastes transferred for off-site disposal, treatment, recycling, or energy recovery as well as on pollution prevention activities. Initially, TRI was limited to manufacturing plants and covered around 320 chemicals and chemical categories and only chemical releases and transfers off-site. With the adoption of the 1990 Pollution Prevention Act on-site recycling was added and since 1995 the number of chemicals and chemical categories covered by TRI has doubled to around 630. A new proposal for lower thresholds for persistent, bioaccumulative and toxics (PTBs) was made in 1999. Effective data management has been developed supporting reporters and different users of TRI data (fact sheets, CD-ROM and diskettes, GIS Web servers). Various expert applications of TRI data are prepared for risk screening, modelling, etc.

EUROPEAN COMMUNITY

29. The EU Commission sees the European pollutant and emissions register (EPER) as a means of monitoring pollution reduction and the achievement of targets rather than as a right-to-know tool for forcing pollution reduction. EPER is not considered to be a pollution inventory for new pollutants with unproven risks, such as persistent toxic bio-accumulated compounds (PTBs), endocrine disruptors, etc. Reporting on solid waste as "emissions to soil" is not included owing to legal definitions in the EU. The European register covers only 50 substances in all (37 for air, 26 for water, none for waste) and has high thresholds (designated to capture 90% of quantities presumably from those industries covered by the Integrated Pollution Prevention and

Control Directive - IPPC 96/61). Reporting to the EPER is done for entire enterprises and not individual facilities. The first EPER data are expected for the year 2001 (with 2000/2002 as options), with the first reports due from EU Member States in mid-2003. The first report will be regarded as a "pilot", and the EPER scope may be extended. The IPPC Directive stipulates that reporting should take place only every three years, but the EU Commission would like to have annual reporting (probably after 2007). The European Environment Agency will have responsibility for publishing the results (also via the Internet).

Note

Countries that have not replied to the survey may obtain a copy or download the Questionnaire Form file from the Internet (http://www.ecn.cz/prtr-tf) and send it to the secretary of the PRTR task force (ondrej.velek@ecn.cz).

Annex II

DISCUSSION PAPER PREPARED BY THE CZECH REPUBLIC WITH THE ASSISTANCE OF THE UN/ECE SECRETARIAT INCORPORATING THE CHANGES REQUESTED BY THE TASK FORCE

Introduction

1. At their first meeting (Republic of Moldova, 19-21 April 1999), the Signatories to the UN/ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters agreed, inter alia, that a task force on pollutant release and transfer registers should be established. The Czech Republic offered to serve as lead country for the task force.

2. The task force was charged with the task of preparing a report summarizing the experience in the area covered by article 5, paragraph 9, of the Convention, as well as relevant international processes and developments, and to make recommendations for further action (CEP/WG.5/1999/2, para. 58 and annex, para. 42). The work of the task force can therefore be seen as contributing towards the preparation of the first meeting of the Parties, at which, according to the requirement in article 10, paragraph 2 (i), of the Convention, Parties should review their experience in the establishment of pollution inventories and consider what further steps are necessary, including the drawing-up of an appropriate instrument on PRTRs which could be annexed to the Convention.

3. The present paper is intended to serve as the basis for a report from the task force to the Meeting of the Signatories. Chapter I briefly describes the background to the emergence of the PRTR concept within a freedom-of-information context, and Chapter II identifies the relevant provisions of the Aarhus Convention. Chapter III describes the main features of PRTRs and their basic objectives. Chapter IV provides an overview of relevant international and EU processes. Chapter V then sets out a number of elements to be taken into account in the consideration of further steps. The review of experience is addressed in the separate paper presenting an analysis of the responses to the questionnaire circulated in December 1999. This paper does not aim to address the issue of cost and benefits of PRTRs.

I. PRTR IN THE CONTEXT OF EVOLVING FREEDOM-OF-INFORMATION SYSTEMS

4. The past few decades have seen the emergence of many national systems of freedom of information. Some of these, following in the footsteps of the

Swedish or United States approach, have covered information in general, whereas others have focused on environmental information.

5. Within western Europe, EU Directive 90/313/EEC on freedom of access to information on the environment, adopted on 7 June 1990, provided an important stimulus to strengthening public access to information in the environmental sphere. While some EU countries already had well established traditions of transparency, others were required to make significant legislative changes in order to comply with the Directive.

6. In eastern Europe, following the political and economic changes at the end of the 1980s, many governments introduced constitutional provisions protecting rights to information (either general or environmental). Some went further by including access-to-information provisions in their environmental legislation or, in a few cases, starting to develop specific access to information legislation. Those countries having applied, or intending to apply, for membership of the European Union have been influenced in these measures by the EU Directive.

7. In both western and eastern Europe, the primary focus of freedom-of-information legislation has been on information held by public authorities. The question of how to establish an adequate flow of information from the private sector into the public domain - either directly or via public authorities - has tended to receive lower priority, or else has been addressed at a later stage.

8. In the United States too, the primary target of right-to-know legislation, in the form of the 1966 Freedom of Information Act, was initially information held by public authorities. It was almost two decades later that the United States introduced the Emergency Planning and Community Right to Know Act, which provided for the PRTR system known as the Toxics Release Inventory. This created a set of obligations for the private sector, which complemented the well-established obligations applying to public bodies.

9. The value to the public of having access to information held by public authorities is limited if the public authorities themselves have only limited access to the information. In the context of solving environmental problems, reporting requirements on the private sector, as well as being necessary for regulatory purposes, are an essential aspect of a comprehensive freedom-of-information regime.

10. At ECE level, the Sofia Guidelines, which may be regarded as the precursor to the Aarhus Convention, mainly focus in the information paragraphs on public authorities, and some private bodies under the control of public authorities and having environmental responsibilities. However, the Guidelines implicitly give some recognition to the importance of access to information held by the private sector. For example:

”Public authorities should regularly collect and update adequate environmental information. In addition, States should establish, where voluntary systems are inadequate, mandatory systems for ensuring that there is an adequate flow of information about activities significantly affecting the environment.” (para.4)

”States should encourage entities whose activities have a significant adverse impact on the environment to report regularly to the public on the environmental impact of their activities.” (para.14)

II. RELEVANT PROVISIONS IN THE AARHUS CONVENTION

11. The Aarhus Convention reflects the aforementioned tendency to initially and/or primarily focus on information held by public authorities, especially in article 4, which sets out the main requirements for a system of responding to public requests for access to environmental information held by public authorities. Certain privatized bodies are covered by the definition of public authorities, but the obligations upon them are of a different nature to the reporting obligations under a PRTR system.

12. However, the Convention also contains some significant elements which address the issue of environmental information held by the private sector. Article 5 deals with issues relating to the collection and dissemination by public authorities of environmental information. It contains a number of provisions which have implications for the private sector and which are relevant to PRTRs. For example, paragraph 1 echoes the aforementioned provisions of the Sofia Guidelines but in more binding language:

”Each Party shall ensure that:

(a) Public authorities possess and update environmental information which is relevant to their functions;

(b) Mandatory systems are established so that there is an adequate flow of information to public authorities about proposed and existing activities which may significantly affect the environment”.

In this case, the requirement that mandatory systems be established is not qualified with the Sofia Guidelines’ phrase ‘where voluntary systems are inadequate’.

13. Paragraph 2 of article 5 refers to the need for information to be made ‘effectively accessible’ through establishing and maintaining practical arrangements such as ‘publicly accessible lists, registers or files’ to which access is provided free of charge.

14. The most specific reference to PRTR-type systems in article 5 is made in paragraph 9, which states:

"Each Party shall take steps to establish progressively, taking into account international processes where appropriate, a coherent, nationwide system of pollution inventories or registers on a structured, computerized and publicly accessible database compiled through standardized reporting. Such a system may include inputs, releases and transfers of a specified range of substances and products, including water, energy and resource use, from a specified range of activities to environmental media and to on-site and off-site treatment and disposal sites."

While the text stops short of establishing an immediate obligation to set up a PRTR, the first sentence nonetheless contains an obligation to move in a certain direction. The second sentence offers an indicative list of elements which may be included in a PRTR system. While the inclusion of items in the list does not represent a requirement that they be part of the inventories referred to in the first sentence, it does imply that they are legitimate issues for discussion at the first meeting of the Parties as per article 10, paragraph 2 (i).

15. Paragraph 2 of article 10 on the Meeting of the Parties states:

"At their meetings, the Parties shall keep under continuous review the implementation of this Convention on the basis of regular reporting by the Parties, and, with this purpose in mind, shall:

(i) At their first meeting, review their experience in implementing the provisions of article 5, paragraph 9, and consider what steps are necessary to develop further the system referred to in that paragraph, taking into account international processes and developments, including the elaboration of an appropriate instrument concerning pollution release and transfer registers or inventories which could be annexed to this Convention."

Through this provision, PRTRs are singled out as one of a small number of priority issues to be given attention in the further development of the Convention.

III. DESCRIPTION OF POLLUTANT RELEASE AND TRANSFER REGISTERS (PRTRs) AND THEIR RATIONALE

16. Pollutant release and transfer registers (PRTRs) are systems of tracking the use, transfer and release of chemicals/substances which record chemical-specific and standardized data on emissions of toxic and other polluting substances to air, water and land (including recycling, off-site transfers and disposal) from identifiable polluting industrial facilities (private, municipal or State). Their use can also be extended to cover non-point sources of pollution, as well as reporting on energy and water use, and chemicals released or transferred in products. The information reported is intended for active and regular public dissemination to industrial managers and workers, governmental policy makers, investors, local communities and

local decision makers, public-interest groups and the media. Public reporting at the facility level provides corporate accountability to the local community and beyond.

17. Reliable, consistent, standardized and multimedia information on pollutant releases and transfers to the environment - clearly identifying the individual sources for point source pollution - is vital if realistic and measurable pollution prevention/reduction targets and priorities are to be set. PRTR data provide baseline figures for types and quantities of individual pollutants against which progress in reducing levels of specific contaminants can be measured. Indeed, as part of their PRTR reports, facilities may set targets for preventing or reducing the levels of emissions they have reported on. They then report on progress in achieving these targets in their next, periodic PRTR reports. In leading to reduction in releases and transfers, PRTRs can be an important stimulus to cleaner production and products, and long-term industrial sustainability.

18. The fact that the reported data are put in the public domain is a central aspect of the PRTR concept, in that it increases the pressure on companies to improve their environmental performance and to reduce their releases and transfers of reportable substances.

19. As the OECD Guidance for Governments on PRTRs 1/ (see chap.IV) recognises, ”Goal-setting is the first step towards developing and implementing a PRTR”. It adds that ”A PRTR is a tool which can help in attaining a variety of environmental goals. These goals need to be clearly set out and understood by all affected and interested parties before work is undertaken to develop criteria and a specific list of chemicals for a PRTR. The process of setting the goals and selecting the list of chemicals should involve all affected and interested parties and be transparent. It should also take into account the needs, roles and rules of local, regional, national and even international entities”. 2/ A PRTR designed, for example, from the beginning as a public information tool may differ in important respects from one designed as a pollution monitoring tool. In fact, a well-designed PRTR can achieve both these objectives if planned to do so.

20. According to the OECD Guidance, goals could include:

(a) Reducting risks from pollutant releases and transfers to humans and/or the environment while ensuring that sources of pollutant releases are identifiable and accountable;

(b) Helping to obtain data so that regulated or controlled chemicals and/or chemicals to be reported under international obligations are monitored in a periodic and consistent fashion (e.g. a PRTR as a tool to monitor compliance with multilateral environmental agreements);

(c) Identifying key environmental burdens and their sources locally and regionally;

(d) Reducing specific environmental burdens, e.g. greenhouse gases, ozone depleters, which have a global impact;

(e) Promoting pollution reduction and prevention as well as transformation toward the use of cleaner technologies, e.g. mandatorily or by voluntary actions on the part of the pollutant source;

(f) Encouraging and monitoring product stewardship by importers, manufacturers and distributors;

(g) Promoting integrated pollution prevention and control efforts, e.g. monitoring the effectiveness of regulatory regimes;

(h) Harmonizating and rationalizing existing reporting requirements, e.g. contained in operating licences and permits so as to improve efficiency and consistency of data collection and management;

(i) Broadening public participation and interest in environmental policy decision-making processes;

(j) Disseminating information concerning potential risks in local, regional or national contexts;

(k) Encouraging the incorporation of a pollution prevention ethic within industry as companies realize the economic benefits of reducing the generation of releases and transfers which can require costly control mechanisms as well as treatment and disposal; and

(l) Minimizing the impact of future environmental policy.

21. According to the OECD Guidance, PRTR reporting should be:

- On individual chemicals;
- By individual facilities;
- On all releases and transfers to the environment - to air, land, water, off-site treatment and disposal sites;
- Periodic so that trends can be tracked;
- Structured for entry, organization and analysis, and access through computer database management;

and should:

- Use common identifiers so that data can be aggregated and compared for data elements such as chemicals, facilities, and locations,
- Allow for limited trade secrecy;
- Show what types of data are claimed secret;
- Be intended for active public dissemination of data to local communities, industrial managers, government policy makers, or investors.

22. With the information thus gathered and disseminated, government, industries, individuals, labour/trade unions, public-interest non-governmental organizations (NGOs), and the media can do their own analyses and help solve pollution problems at their source.

23. For countries with economies in transition and developing countries, the need for information may be especially acute. Many of these countries may have access to internationally available information about chemicals (e.g. toxicity data), but they often do not have information about the flow (e.g. emissions, transfers) of chemicals within their borders. Emissions information allows countries to allocate resources more effectively, and prioritize chemicals, industries or environmental media for regulatory action.

IV. THE EXISTING CONTEXT

A. Overview of national developments

24. The United States and the Netherlands were the first countries to introduce a form of PRTR as an instrument of national pollution prevention policy, followed by the United Kingdom (England and Wales). The international activity on PRTRs has since generated interest among many governments. Australia, Canada, Mexico and most recently Japan have all introduced PRTRs

broadly following the OECD PRTR Guidance for Governments (see paras. 19-21 and 27-41). Argentina, the Czech Republic, the Russian Federation, Slovakia and South Africa are in the process of developing PRTR systems.

25. In western Europe, however, progress towards setting up PRTRs at national level has been comparatively slow. At present, for example, fewer than half of the 15 EU member States have some kind of integrated public emissions register. A 1998 report carried out for the European Commission by the Swedish Environmental Protection Agency (see paras. 42-48) concluded that, technically, only the Netherlands, England and Wales, and Ireland could be considered to have fully integrated emissions registers in place covering all environmental media – air, land and water. The Netherlands and England and Wales have since developed their registers further into ”second generation” PRTRs. However, there is an expectation that the creation of the EU European pollutant emissions register may trigger a wider movement to develop publicly accessible, transparent PRTR-type emissions registers.

26 A more detailed overview of the current level of progress in establishing PRTRs in UN/ECE countries is being prepared based on responses to a questionnaire. Interim results will be presented at the task force’s meeting. To date, responses have been received from Albania, Austria, Belgium, Canada, the Czech Republic, Denmark, Germany, Hungary, Ireland, Lithuania, Latvia, Norway, Slovakia, Sweden and the former Yugoslav Republic of Macedonia. The Regional Environmental Center for Central and Eastern Europe is also undertaking an assessment of PRTR activities in central and east Europe and will present its interim findings to the task force.

B. Relevant international developments

27. The workplan agreed by the Meeting of the Signatories requires the task force to take account of relevant international processes and developments. Clearly this approach will enable the task force to benefit from the considerable amount of work already undertaken in international forums on the topic of PRTRs, as well as to avoid duplication. Some of the main international work on PRTRs and the agencies involved is outlined below.

United Nations Conference on Environment and Development (UNCED), 1992

28. At UNCED, popularly known as the ”Earth Summit”, governments and other stakeholders agreed on a programme of sustainable development for the 21st century entitled Agenda 21. Chapter 19 of Agenda 21 deals with the environmentally-sound management of toxic chemicals. Chapter 19, programme area E on risk reduction, identifies information gathering and dissemination about toxic chemicals as a basic element for the sound management of chemicals. Gathering and disseminating information on the emissions of chemicals of concern is of critical importance. Countries need to know whether

these chemicals are emitted to the air, water, land or transferred to other locations, as well as their sources and changes over time. Chapter 19 advocates the establishment of national emission inventories, now known as pollutant release and transfer registers (PRTRs), on a worldwide basis.

OECD Guidance for Governments on PRTRs

29. In response to the call in UNCED Agenda 21, Chapter 19, for the development of guidance for governments on chemical emission inventories, the Organisation for Economic Co-operation and Development (OECD) and the United Nations International Programme on Chemical Safety (IPCS) then ran five multi-stakeholder workshops on what are now called generically PRTRs. The guidance was published by the OECD in 1996 as the Pollutant Release and Transfer Registers: Guidance Manual for Governments (OCDE/GD(96)32). The Manual is organized along five main themes including: (i) major issues in deciding whether to establish a PRTR; (ii) formulating goals/objectives and a list of substances for a PRTR; (iii) data handling and management issues; (iv) making PRTR outcomes publicly accessible; and (v) implementing a full PRTR system.

Intergovernmental Forum on Chemical Safety (IFCS)

30. IFCS is the post-UNCED political forum set up in 1994 to develop new international partnerships for dealing with chemical risks, based on implementing Chapter 19 of Agenda 21 on environmentally sound management of toxic chemicals. The Forum is a non-institutional arrangement where governments, intergovernmental organizations, industry, scientific bodies, labour/trade unions, and public-interest NGOs meet to:

(a) Develop and coordinate policies on the environmentally sound management of toxic chemicals;

(b) Provide advice and make recommendations to governments, intergovernmental organizations, industry, labour/trade unions, scientific bodies, and public-interest NGOs.

IFCS is not an implementing body so there are no IFCS programmes or activities as such. Implementation is carried out by governments and intergovernmental agencies in cooperation with the stakeholders.

31. Promotion of PRTRs on a worldwide basis is one of the Forum’s major objectives. The main recommendations on PRTRs by governments at the IFCS Forum II meeting in 1997 were:

(a) The IOMC organizations should continue their efforts to facilitate and encourage the adoption of PRTRs at national and local levels throughout the world;

(b) To carry this important work forward, UNITAR and OECD, in collaboration with the existing PRTR Coordination Group, should assist monitoring agencies within IFCS countries in establishing PRTRs programmes;

(c) Capacity-building workshops, seminars and projects which may be organized should include elements of community right-to-know and PRTRs.

32. PRTRs will be a major agenda item at the IFCS Forum III meeting to be held on 14-20 October 2000 in Salvador de Bahia, Brazil. The plenary session on emission inventories will focus on the needs of countries with economies in transition and developing countries when establishing PRTRs. This discussion will address how all countries can use the information for their regulatory development. It will highlight steps that international organizations can take to facilitate the development of emission inventories. The session will also consider how industry and the public can improve the integration of emission inventories into a country's overall chemicals management efforts.

Inter-Organization Programme for the Sound Management of Chemicals (IOMC)

33. In pursuance of Chapter 19, IOMC was created in 1995 to strengthen coordination between intergovernmental organizations dealing with international chemicals management, and to avoid duplication of programmes. IOMC is a cooperative agreement between seven major intergovernmental chemical agencies. It comprises six United Nations bodies - the Food and Agriculture Organization of the United Nations (FAO), the International Labour Organization (ILO), the World Health Organization (WHO), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO) and the United Nations Institute for Training and Research (UNITAR) – plus the Organisation for Economic Co-operation and Development (OECD). Within the IOMC, an Inter-Organization Coordinating Committee (IOCC) has been established to foster joint planning of relevant activities of these organizations.

34. An international IOMC PRTR Coordinating Group which includes governments, intergovernmental, industry, trade union, and public-interest NGO representatives has been established. This PRTR Coordinating Group reports on progress to the Intergovernmental Forum on Chemical Safety.

Work of the IOMC intergovernmental agencies on PRTRs

35. Using the PRTR Guidance Manual for Governments, OECD in cooperation with UNITAR and UNEP, has held a series of regional PRTR workshops to encourage the creation of national PRTRs. At an Asia-Pacific workshop, for example, participating countries endorsed PRTRs as a tool for environmental protection and sustainable development. All participants agreed that, in the Asia-Pacific context, PRTRs must be mandatory rather than voluntary, and have a strong community right-to-know component in order to be meaningful and consistent.

36. An OECD international conference "PRTRs – National and Global Responsibility", hosted by the Environment Agency of Japan, was held in 1998. Its purpose was to take stock of the progress and status of PRTR

implementation worldwide, and to identify future directions for OECD and the international community. It was the largest gathering of PRTR experts since the UNCED ”Earth Summit” in 1992. It recommended that: 3/

(a) All countries without PRTRs should take steps, as appropriate, to initiate a national PRTR system as specified in Agenda 21, Chapter 19;

(b) OECD countries should continue to set an example in implementing PRTRs, and should take the lead in sharing their experiences worldwide;

(c) UNITAR and UNEP should continue their valuable work with industrializing countries and economies in transition, in order to strengthen national capacity to design and implement PRTRs;

(d) OECD should review its PRTR Guidance Manual for Governments and identify areas where supplemental policy and technical guidance might be needed, in order to:

(i) Better share techniques for estimating releases from point and diffuse sources, methodologies for disseminating PRTR data, and techniques used for data presentation;

(ii) Share and improve methods for verifying the data (quality assessment/quality control);

(iii) Identify what is needed to standardize reports;

(iv) Develop tools and methods to compare PRTR data across borders

(v) Find ways to better indicate opportunities for cleaner technology and technology transfer; and

(vi) Examine methods that users and providers of PRTR data can adopt to ensure more effective use and generation of data;

(e) International organizations should work together to identify how PRTRs can be used to monitor commitments set forth in international agreements;

(f) International organizations, as well as countries, should develop tools to help integrate national PRTR systems and reporting requirements with international pollution collection and reporting requirements;

(g) Multilateral and bilateral development cooperation agencies should continue to support work in industrializing countries and economies in transition associated with the design and implementation of national PRTRs systems in the initial design phase;

(h) OECD should initiate discussions with UN/ECE on the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters about PRTRs and their role in providing the public with information and data about pollutant releases and their sources;

(i) Countries should examine the value of linking a PRTR system to a permitting system such as for integrated pollution prevention and control.

37. The UNITAR PRTR programme 4/ assists developing and industrializing countries in the design and implementation of national PRTRs through a process involving all interested parties. In the context of country-based PRTR design projects, UNITAR provides partner countries with guidance and technical

support materials, facilitates linkages with relevant experts and countries with existing PRTR systems, and provides information, resources and feedback to assist partner countries throughout the PRTR design process. UNITAR conducts this programme in close cooperation with OECD and UNEP Chemicals, and initiates partnerships with countries on a case-by-case basis and subject to the availability of extrabudgetary resources.

38. Through country-based PRTR design pilot projects, UNITAR has developed a Guidance Series for Implementing a National PRTR Design Project, which complements the substantive information in the OECD Guidance Manual for Governments on PRTRs. Cooperative PRTR projects have already been undertaken in Argentina, the Czech Republic, Egypt, and Mexico. In the year 2000, the UNITAR country-based activities include a formal collaboration with Slovakia to assist in the completion of a national PRTR design project, support for which is provided by the United States Agency for International Development (USAID) and US/EPA, and completion of the PRTR design project in Mexico.

39. At the international level, UNITAR has initiated, in cooperation with members of the IOMC PRTR Coordinating Group, a network of PRTR resource persons through which interested countries will learn about and have better access to PRTR-related expertise in countries and organizations.

40. In addition, UNEP is promoting the establishment of PRTRs in countries of the Commonwealth of Independent States (CIS). Pilot countries are Kazakhstan, the Russian Federation, Ukraine and Uzbekistan. Pilot regions have already been identified in the Russian Federation and Ukraine. A series of national or regional workshops was held in 1999 and more are planned for 2000. UNEP is also assisting Thailand in its PRTRs development programme.

41. A regional body which is centrally involved in promoting PRTRs and public participation is the North American Commission for Environmental Cooperation (NACEC) 5/ made up of the governments of Canada, Mexico and the United States. The three PRTR systems in these countries are the Canadian National Pollutant Release Inventory (NPRI), the Mexican Registro de Emisiones y Transferencia de Contaminantes (RETC), and the United States Toxics Release Inventory (TR). NACEC develops a matched data set based on the publicly accessible data from these national PRTR systems and compiles an annual report in English, French and Spanish, entitled ”Taking Stock”, on North American pollutant releases and transfers. This report encompasses information on the three main objectives of its work on PRTRs, namely:

(a) Promoting public access to data on pollutants in North America, drawing on national, publicly accessible PRTR data. There is a strong emphasis on fostering public participation and the role of civil society in use of these data. A Web site is currently being developed;

(b) Promoting environmental improvements for governments, industry and

others through comparison of PRTR data;

(c) Fostering comparability between the three national PRTR systems, which involves regular meetings of the PRTR secretariats staff;

European Union

42. European Union (EU) is finalizing plans for a mandatory public register of emissions from named industrial sources, to be called the European pollutant emission register (EPER). Article 15 of the Council Directive 96/61/EC concerning Integrated Pollution Prevention and Control (IPPC) provides for the establishment of the EPER. Its main purpose will be to collect comparable emissions data of individual polluting sources and activities into an integrated register and to disseminate the monitored data to the public. The initial version of the EPER is less comprehensive in scope than, for example, the United States TRI, though EU states that its longer-term aim is that "The scope of the EPER will develop into a fully integrated pollutant emission register" 6/

43. An analysis of the EPER was carried out by the Swedish Environmental Protection Agency (EPA). 7/ Based on its recommendations, the Commission drew up a proposal for the EPER, the main elements of which are:

(a) Data in the EPER should be delivered to the European Commission by the national governments of the member States;

(b) Date should be facility-specific;

(c) Principal emissions and sources should be inventoried;

(d) Initial reporting will be every three years of 36 chemicals to air and 27 to water (50 in total). Though the declared, longer-term aim is to move towards more frequent reporting;

(e) Specific threshold values for each chemical/medium have been established at a level that should catch at least 90% of emissions of each pollutant from installations covered by the IPPC Directive;

(f) Wastes have been excluded for the moment because of legal problems with the definition of solid waste. So no emissions to land or for solid waste production will be reported.

44. The EPER will be used as a public register to provide environmental information on industrial sources of emissions as in the annex to the IPPC Directive and has two main objectives related to different groups of users:

(a) For governments to monitor the progress of achievements in meeting environmental targets in national or international agreements; the EPER enables the Commission to identify principal emissions and industrial sources, assess the reported data of member States with respect to international agreements and to publish the results periodically;

(b) To raise public awareness of environmental pollution and to enable

the public to compare emissions by individual facilities or industrial sectors. The public can be a non-governmental organization, a research organization or an interested citizen or community group; making the data accessible on an Internet site will increase the public use of the EPER data.

45. The Commission's proposal emphasizes the importance of the information in the EPER being comparable to allow an objective and reliable comparison of emissions from different sources in different countries. The issue of transparency is also addressed. "For the interpretation of the emission data, it is important to know how the data collection was performed, how the emissions were measured or estimated, which methodology and emission factors were used to estimate emissions, what units of the reported data are and confirmation that validation was done by the competent authorities." 8/

46. As the EPA's Analysis notes, 9/ the development of the EPER is associated with certain conditions:

(a) The EPER will not replace national inventories, but will come "on top" or be part of them;

(b) As only principal emissions and certain installations responsible will be included, the EPER approach will be limited. As waste is not yet included in the reporting requirements, this limits its scope as a fully integrated pollution control tool covering all releases to all media (air, land and water).

47. On 25 January 2000, the draft Commission decision concerning the implementation of an EPER (15 December 1999) was discussed and endorsed – with only minor modifications – by the "Article 19 Committee" of the IPPC Directive. The amended document will be submitted for final approval in April, and Commission Guidance on the EPER will be published before the end of 2000.

48. The European Environment Agency (EEA) will play an important role in developing and maintaining the EPER database. It will also assist the Commission in the preparation of the Guidance document, and will help make the data publicly accessible by dissemination on the Internet.

VI. ELEMENTS FOR CONSIDERATION IN THE PREPARATION OF FURTHER STEPS

A. General

49. It is clear from the previous chapter that a considerable amount of work on PRTRs is under way at the international and EU levels. Therefore, key considerations in planning PRTR-related activities under the Aarhus Convention are: avoiding duplication, maximizing synergies and building on work already

done. In this respect, the distinctive feature of the Convention is that it provides a legally binding framework potentially covering the whole of the ECE region and even open to accession by non-ECE countries.

50. The reference in article 10, paragraph 2 (i), to the development of a specific PRTR instrument to be annexed to the Convention as something which is to be considered makes it clear that the Meeting of the Parties, when discussing further steps, should not only consider information exchange on PRTR activities. The remainder of this chapter therefore looks at what such an instrument might look like. One question concerns the form a PRTR instrument might take, e.g. a protocol, annex, guidelines, or decision of the Parties. In fact, there is likely to be a relationship between the content of the instrument and its form. It might therefore be premature to proceed in the direction of a certain form of instrument until a clearer picture of its possible content emerges.

51. Since the Aarhus Convention provides a framework which is legally binding, it would seem to make sense that at least some of the content of the instrument should be legally binding. On the other hand, the possibility of including elements which have recommendatory force alongside those of a mandatory nature could be explored. One possibility would be for such an instrument to have a hard ‘core’ of legally binding elements, drawing for example upon elements in the OECD Guidance Manual and/or the proposed EU EPER, which characterize agreed minimum requirements for any PRTR recognized as such under the Convention. There could then be a number of ‘soft’ or recommendatory elements which are considered by Parties to be generally desirable but not necessary applicable in all cases.

B. Specific

52. An instrument on PRTRs could cover a number of different areas or elements. The following are based on those areas covered in the OECD Guidance.

Reporting on individual substances

53. According to Chapter 19 of Agenda 21, there are approximately 100,000 chemicals in commerce, some 1,500 of which are high production volume chemicals. Selection of which chemicals to include in a PRTR list is an important issue, including whether to cover both conventional pollutants and toxic substances. The selection procedure should be discussed in an open and transparent way, and any scientific objective criteria used in selection made clear. The OECD Guidance states that ”Differing points of view about goals, definition, and scope, combined with technical/scientific data gaps concerning candidates for a PRTR list, argue strongly for involving all affected and interested parties in the selection process. Not only representatives of government bodies, the public and the chemical industry may be concerned; but

also, those involved in agriculture, transport, energy production, construction, waste management and other economic sectors". 10/

54. It is important that PRTRs provide release and transfer data for specific, individual substances wherever possible (as opposed to groups of substances, e.g. "organochlorine" substances). Each single chemical is reported on, using the same name and identifier regardless of its location in the product or waste stream, that is, for example, whether it is being used as an intermediate, recycled, or put into water. The chemical is identified by chemical name and an identification number such as the chemical abstract service (CAS) number. Also included are the unit of measurement (kilograms, for example) and the level of precision of the measurement/estimation. Reporting on individual substances allows reports to be compared across the facility and at company, sector, national, regional and global levels. Providing such data allows individual substances to be pinpointed for preventive or remedial action.

55. The threshold or threshold conditions for triggering a report is a key parameter. The United States Toxics Release Inventory has two main thresholds. 25,000 pounds (11.36 metric tonnes) for manufacturers or processors of substances; and 10,000 pounds (4.55 metric tonnes) for users of substances. However, new reporting thresholds for persistent, toxic and

bioaccumulative (PTB) substances have been established. The reporting thresholds for PTB substances, such as mercury, have been lowered to 10 pounds (4.5 kilograms) per year, and to 0.1 grams per year for dioxins. Canada is doing likewise.

56. The EU EPER, in annex 1, lists the 50 air and water pollutants to be reported if a threshold value is exceeded. The selection criteria for pollutants in the EPER are based on the ”environmental significance” of industrial emissions of pollutants and are as follows:

- Considering the annex III (source categories) list of the IPPC Directive and making a differentiation between air and water;
- Including pollutants for which international reporting requirements already exist;
- Having a combination of individual chemicals and groups of substances;
- Limiting the number of pollutants for both air and water as much as possible.

57. In addition to the list of pollutants, a threshold value for each of the substances is specified. The threshold values are categorized in different orders of magnitude. A facility has to report on each pollutant for which the threshold value is exceeded. The aim of the threshold values is to avoid industry reporting on small emissions and to cover the reporting of at least 90% of total industrial emissions in Europe. In general, a facility will only exceed a reporting threshold value for a limited number of pollutants so that reporting for industry will not be excessive.

Range of bodies required to report

58. Although use of PRTR systems is significant in the extent to which it implies obligations for the private sector, it is important that releases and transfers from government and municipal sources be covered when they are engaged in activities equivalent to those of the private sector. In other words, the determining factor should be the nature and scale of the activities rather than whether they are publicly or privately owned.

59. For the private sector, industrial classification schemes as the Standard Industrial Codes (SIC), the International Standard Industrial Codes (ISIC) or the EU NOSE-P Classification System need to be used to designate those operations required to submit reports.

60. Small and medium-sized enterprises (SMEs) play an important role in the industrial fabric of all countries. Given the large number of SMEs in most countries, they may account for a significant percentage of national pollutant releases and transfers. As the OECD Guidance states, inclusion of releases

from SMEs deserves to be considered in a PRTR system as otherwise key information will almost certainly be lost. Under the United States TRI, individual facilities with 10 or more full-time employees must report, if they manufacture or process more than 25,000 pounds (11.36 metric tonnes) or use more than 10,000 pounds (4.55 metric tonnes) of TRI-listed substances. In 1998, 24,000 facilities sent a total of 87,000 reports to the United States TRI. Annex A3 of the EU EPER draft decision lists the ”source categories” that could possibly be covered by the EPER.

Reporting by individual facilities

61. Although emissions reporting may involve the company and production unit levels for some types of data, the industrial facility is the basic unit, and most important entity, in determining how a chemical is used and managed. It is therefore essential that reporting is done at the facility level. The PRTR data need to be available to everyone at the facility from the chemical purchasing agents and waste handlers to the plant managers and company chief executive officer (CEO). At the same time, it is the facility that ”meets” the community. Facility-level data, including geographical coordinates (geo-referenced data), relating to the area in which a plant is located, provide the basis for managers and workers to discuss the environmental performance of a facility with their community.

62. The entire facility will be the reporting unit for the EPER, as in the PRTRs of Canada and the United States. A ‘facility’ could be defined as an industrial complex with one or more installations at the same geographical location or site, where the same operator carries out one or more activities causing the release or transfer of pollutants.

63. PRTR can also be used for dealing with pollution from diffuse sources. In order to take account of diffuse sources, governments will almost certainly have to rely upon data from environmental monitoring activities combined with information such as the number of motor vehicles, numbers of each type of farm animal, amounts of fertilizers and pesticides applied to the land, the fuel mix for energy sources and so on. Governments can use a combination of monitoring data, existing statistical data and emission factors to make estimates of pollutant releases based on activity areas. These data are then converted by statistical means into most probable indications of total pollutant releases from the diffuse sources of interest. Both the Canadian and the Netherlands PRTR systems include estimates of releases from diffuse sources.

Reporting on reduction targets and measures

64. A PRTR report on releases and transfers from a facility may also contain targets set by that facility to prevent or reduce those emissions. Progress in

achieving those prevention/reductions targets will, in turn, be reported on when the next, periodic PRTR report is made. The United States TRI, for example, requires facilities to include reduction targets and details of reduction measures in their annual TRI reports.

Reporting frequency - periodic and timely

65. It is important that facilities report on a periodic basis so that trends can be analysed and progress towards goals tracked. The important point is that reporting occurs regularly. Most countries are establishing annual reporting cycles. The PRTRs in existence in Canada, the Netherlands, Norway, the United Kingdom and the United States, for example, all require annual reporting. Poland requires quarterly reporting by facilities in certain cases. Although the EU EPER proposal starts with a three-year reporting cycle, the aim of the Commission is to move towards annual reporting. In line with national practice in countries with PRTRs, it is recommended that facilities should report on an annual basis given how rapidly activities change and the need to use the data to look forward for pollution prevention purposes rather than having perfectly accurate data about the past.

66. Timeliness of reporting is also an important criteria. The data need to be up to date if they are to be used for preventive or remedial action.

Media (air, land, water and waste)

67. Existing reporting on pollutants in most countries occurs in separate air, water and waste programmes. The result is that it has been difficult, if not impossible, to get a concise yet comprehensive picture of the actual amounts of chemicals entering the environment. PRTRs have the potential to cover chemicals flow into the environment, whether to the air, the water or the land, whether to incinerators, waste-water treatment plants, landfills or recycling facilities. Strategic decisions might be made on which media elements to tackle first, but a PRTR should cover air, land and water if it is part of an integrated approach.

68. Releases and transfers of chemicals in the waste stream can be divided into four broad categories:

(a) Environmental releases to air, land and water are tracked as chemical using a common identifier, whether the chemical is landfilled as waste or released to air or water. (Transfer also deals with transboundary movement of waste/dumping);

(b) One-time non-production releases of the chemical are wastes from cleaning up facilities or accidents.

(c) Off-site transfers in waste, including transboundary transfers, include the amounts and locations of waste treated, recovered for energy,

recycled or disposed at other facilities;

(d) On-site transfers of the chemical in waste cover the amounts treated, recovered for energy or recycled at the reporting facility.

69. Dividing the waste stream in this way provides a means of tracking how much of the chemical is being released to the environment, and how much is being treated, recovered or recycled, where, and by what method. It highlights opportunities for source reduction and needs for waste management facilities.

Reporting on products, energy and water

70. If a PRTR is to be effective, the goal of comprehensive knowledge of what materials/substances are used in the manufacturing process, shipped in products, or released or transferred needs to be fully considered. Article 5, paragraph 9, of the Aarhus Convention states that pollution inventories may include reporting on inputs, releases and transfers of a specified range of substances and products, including water, energy use and resource use. Reporting on these elements is important because changes in the waste and product stream are likely to change energy and water used.

71. In relation to transfers of chemicals in the product stream, the major source of releases to the environment for many substances is in product use and/or in its disposal. Data on the amount of a product shipped off-site indicate how much of the chemical enters the product stream from a particular facility.

72. Data from the product stream is divided into two categories:

(a) Use in relation to production, which itself has four data elements – the amount of the chemical brought on-site as gas, liquid or solid for each different use; the amount produced on-site; the amount consumed on-site in production by transformation into another chemical; and the amount shipped from the facility in products (by type);

(b) Information on starting and ending stocks of substances during the reporting period. Data on starting stocks that show the maximum amount at the facility during the year can be used to indicate the potential acute hazard to workers and the community from transport or workplace accidents. Data on the starting and ending inventories facilitate materials accounting.

73. Reporting on these elements in addition to toxic substances and conventional pollutants would result in a PRTR that could be used for materials accounting and materials/mass balance analysis. The North American Commission for Environmental Cooperation defines ”materials accounting” as data that describe the flow of a chemical through an industrial facility. It includes the amount of chemical brought on-site, put into stock or removed from it, the amount produced and/or consumed (transformed) during the production process, the amount shipped as or in a product, and the amount generated as waste. 11/ The Commission for Environmental Cooperation defines ”materials balance” as calculations relating to an entire industrial process that ”balance” inputs and outputs. 12/

(a) Inputs:

(i) Brought on-site;

(ii) From stock;

(iii) Produced on-site;

(iv) Recycled;

(b) Outputs:

(i) Consumed in product;

(ii) To stock;

(iii) Shipped in product;

(iv) Waste (includes recycled).

Public access rights (dissemination and use of PRTR data)

74. The information required to be reported under a PRTR system clearly falls under the definition of 'environmental information' provided in article 2, paragraph 3, of the Convention. Thus the provisions in articles 4 and 9 of the Convention concerning the public's right to have access to information on request and to appeal in the event of a refusal will apply to PRTR data. Similarly, some of the provisions of article 5 concerning the collection, organization and dissemination of information will be applicable. It is not considered necessary to elaborate further on the content of these provisions in this paper.

75. A PRTR is specifically designed to promote not just access or availability but (to encourage use through) active dissemination of the data to a wide range of users in raw as well as summarized form. Often intermediary groups, whether business, government-funded agencies, community organizations or investors, take a lead role in analysing and circulating the data. Although quality control is built into the reporting process, wide dissemination helps over time to improve the data.

76. Chapter 4 of the OECD PRTR Guidance (Dissemination and use of PRTR data and results) offers guidance to governments on how access to data, and active dissemination of results, can be positively encouraged and developed. It states that "Indeed, once the goals of a national PRTR system have been selected, perhaps the next most important action is for affected and interested parties to agree about how the PRTR data and results will be made accessible". Active dissemination of PRTR results calls for an outreach plan including such approaches as wide publication, news releases, information hotlines, electronic bulletin boards, public education programmes and worker training. In other words, if government elects to disseminate PRTR results actively, a marketing approach is the suggested method for developing and implementing the outreach programme. It contrasts "easy access/active dissemination" with making PRTR outcomes "available". It argues that, in this context, the word "available" implies a rather passive approach in that the data are placed in a public repository of some kind and interested parties can come and examine them or act to order the data. The word "accessible" implies a more active approach in terms of the "capability" to obtain and use the data. 13/ Electronic access to PRTR data and representation of data through

geographical information systems (GIS) mapping are recognizd as useful tools for increasing accessibility and should be promoted.

Confidentiality provisions

77. Confidential data can be protected under PRTR systems. The OECD Guidance, for example, states that "Balanced with the right-to-know the identity and the risks associated with potentially hazardous ingredients is, of course, the right of the private sector to protect confidential business information in accord with applicable national laws". 14/ However, if many data are claimed confidential, accurate analysis cannot be performed. An unknown piece of the picture is missing. It is important therefore that trade-secrecy provisions are limited. Confidentiality claims should be substantiated at the time of submission by verifying that the information has not already been disclosed or is not required to be disclosed under a law or regulation, that the information is not easily discovered through reverse engineering, and that competitive harm will occur if it is released. If it is agreed that data should be withheld on the grounds of confidentiality, the missing data problem can be addressed in part by requiring that generic information be should submitted that describes the type of data missing.

78. Article 4 of the Aarhus Convention provides for certain exempt categories of information which public authorities may choose not to disclose to the public. These include inter alia information the disclosure of which would adversely affect national defence, public security or the confidentiality of commercial and industrial information. The exemptions are to be interpreted in a restrictive way, taking into account the public interest served by disclosure and whether the information requested relates to emissions into the environment. In practice, relatively little use is made of confidentiality provisions in existing PRTR systems.

Data structuring and management requirements

79. The importance of designing and structuring reports so that data can be managed by computer cannot be overemphasized. It is this approach that results in data that can be easily managed, analysed and widely disseminated. Structuring reports for database management means developing consistent ways of reporting data elements so that they can be easily analysed and compared. A PRTR, for example, needs to report data on individual facilities, their locations, their parent companies and their industry sectors in consistent ways. In addition, a contact person at the facility is important to provide an opportunity to follow up on reports needing clarification. Electronic transfer of data has the important additional advantage of reducing the costs of the system significantly and in reducing errors that are likely to occur in the data-entry process. Even if a country does not yet have the capability for reports to be submitted and managed by computer, paper reporting forms can be structured for computer database management.

80. It is also important that one government agency receives the data,

enters them into a database, checks their quality and disseminates them. Single agency management increases the likelihood that data are disseminated promptly in an integrated form.

81. The need to develop common core data elements is also paramount. Standardized data reporting, which allows facility and sector performance to be compared and analysed, allows the PRTR to be an essential element of an integrated approach to pollution prevention and control at the national level. Furthermore, countries establishing PRTRs are already working to establish systems that approach data management in ways that will encourage international or regional (e.g. pan-European) compatibility.

82. When reporting, common identifiers should be used so that standardized information can be collected and data aggregated and compared. Common identifiers are needed for chemicals, facilities and sites, location, parent company, industrial classifications, and source reduction and waste management methods.

83. Guidelines on techniques for estimating emissions are also an important element of PRTR reporting. It should be borne in mind that a majority of PRTR reports, in whatever national system, are based on estimates – not precise measurements – of emissions. Such guidelines need to be supplemented by rigorous quality control and data verification. Adopting sound metadata practices preserves and enhances the value of PRTR collected geographic data. Metadata or "data about data" describe the content, quality, condition and other characteristics of data. Information and training programmes have been shown to be integral to the success of PRTR implementation. The US/EPA conducts programme-specific training for environmental health and safety officers working in targeted industrial sectors. Compliance assistance centres in the United States provide comprehensive easy-to-understand PRTR compliance information. The United States Chemical Industry Compliance Assistance Center (Chem Alliance), for example, makes available detailed information on Toxics Release Inventory reporting requirements, pollution prevention practices and compliance checklists.

Resources

84. Resources – people, money and electronic devices – are needed to design and set up a PRTR, operate the data collection scheme, maintain it, and to analyse and disseminate the results. Resource requirements will vary depending on the PRTR goals and system selected. Use of existing data reporting systems to service the PRTR may help to reduce costs. Creative design of the PRTR system can limit total resource requirements, but start-up and first-year costs are likely to be higher than in subsequent years.

85. For governments, resources can include:

- Costs of establishing a legal framework;
- Costs of developing, testing, implementing and expanding the PRTR system;

- Costs of software and hardware for the information management system including selection and testing;
- Database development and maintenance, or adapting the system currently in operation;
- Training, and development of guidance materials;
- Preparing and distributing report forms - electronic distribution is likely to cut costs;
- Data entry and handling;
- Validation of reported data (quality control/quality assessment);
- Updating of data, modelling and statistical evaluation;
- Analysis and interpretation of data;
- Dissemination of data, including aiding the public to understand and use the data.

86. For facilities reporting, resources can include:

- Training – for management and workers;
- Identifying PRTR-listed chemicals and determining if threshold quantities are used;
- Estimating/measuring, and monitoring releases and/or transfers;
- Avoiding double counting;
- Completion and submission of PRTR forms;
- Associated record keeping and documentation
- Reviewing estimation techniques and the quality of PRTR data;
- Compliance assurance and remedial action;
- Computer hardware/software
- Community liaison costs.

87. Resources for workers and their trade unions can include:

- Information and training for trade-union-appointed, legally-empowered safety representatives and safety committee members on the benefits and use of PRTR data by the workers. This includes GIS mapping, and publications on PRTRs suitable for trade union members and their families;

- Information and training for trade union officers on the benefits and uses of PRTR data by trade unions, and on GIS mapping;
- Development of educational/training materials for use by union trainers on health, safety and environment training courses for members;
- Dissemination of PRTR data via union journals, publications, Web pages and meetings;

- Measures to facilitate access by workers and their trade unions to electronic media/information, especially in developing countries and countries in transition;

- Case studies on the role of workers and their trade unions using PRTR data to help reduce workplace exposure to pollutants and off-site releases and transfers from their workplaces.

88. Resources for public-interest non-governmental organizations can include:

- User-friendly software/programs for queries;
- Provision of hardware in some cases;
- Training in accessing and using data;
- Effective access to ancillary information such as chemical databases of health hazards and other testing data (preferably electronic forms);
- Mapping information (particularly in digital form);
- Helplines for technical support;
- "Whistle blower" helpline and support;
- Financial support to enable effective participation in PRTR-related processes.

89. At the OECD Workshop on PRTR Release Estimation Techniques in December 1999, it was generally agreed that approximately 60% of PRTR release estimation techniques for point sources were transferable from one country to another. More precisely, it was estimated that one third of the countries with similar industries could readily use estimation techniques from another country. Another third of the techniques could be used by adjusting the data and information inputs to take into account particular local conditions or particular local aspects of an industrial process. Lastly, approximately one third of the estimation techniques developed by one country would not be of use to another country due to the specific characteristics of an industrial process or activity.

90. Authorities may chose to recover some or all of the costs of the PRTR, using different methods, e.g. licence fees. A 1994 report entitled The Right to Know: The Promise of Low Cost Inventories of Toxic Chemicals by World Wildlife Fund - Hampshire Research Institute indicated that generic software for standardized reporting and database management could reduce the cost of establishing PRTRs by half for smaller countries. Free metadata tools, such as MetaViewer 1.2, are available for managing spatial data in ways consistent

with the United States National Spatial Data Infrastructure.

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Notes

1/ Organisation for Economic Co-operation and Development (OECD): PRTRs – Guidance Manual for Governments. Paris, 1996, OCDE/GD(96)32, in English and French.

2/ Ibid, p. 26.

3/ OECD Environmental Health and Safety Publications, Series on PRTRs, No 1 Proceedings of the OECD International Conference on PRTRs: National and Global Responsibility. Tokyo, September 1998, Part 1, pp. 15-16.

4/ Training and Capacity Building Programme to Facilitate the Design and Implementation of National PRTRs: Activity Summary, January 2000. UNITAR, Geneva.

5/ The Commission for Environmental Cooperation was etablished by Canada, Mexico and the United States in 1994 to address transboundary environmental concerns in North America. While the idea to create such a commission originated during negotiations of the North American Free Trade Agreement (NAFTA), it derives its formal mandate from the North American Agreement on Environmental Cooperation (NAAEC).

6/ Commission of the European Communities: Draft Commission Decision concerning the implementation of an EPER. Brussels, 15 December 1999, p.9.

7/ Swedish Environmental Protection Agency: Analysis of an EPER, 1998. EU DGXI for Environment, Nuclear Safety and Civil Protection, Brussels, November 1997.

8/ Commission of the European Communities: Draft Decision concerning the implementation of an EPER. Brussels, 15 December 1999, p.7.

9/ Swedish Environmental Protection Agency: Analysis of an EPER, 1998.

10/ OECD PRTR Guidance for Governments, p. 30.

11/ Commission for Environmental Cooperation, North American Pollutant Release Inventory Information Project: Putting the Pieces Together – The Status of PRTRs in North America. Montreal, Canada, 1996, page X.

12/ Ibid, p.X.

13/ OECD PRTR Guidance for Governments, p.94.

14/ Ibid, p.21.