

This paper has been prepared by the Industry and Environment Programme Activity Center of the United Nations Programme. It does not imply official endorsement by the United Nations or the United Nations Environment Programme.

## INTRODUCTION

In November 1988 UNEP prepared the first edition of Activities of the United Nations Institutions in the Field of Industrial Accidents. An updated outline was produced in December 1990. This edition contains further revisions and additions.

The purpose of this brief outline is to present the current and planned activities that the United Nations bodies, individually or jointly, have undertaken in the field of industrial hazards, according to their respective mandates and capabilities.

The field covered concerns essentially undesired sudden events, happening at land based sites unexpectedly in a very short time frame and having dramatic, potentially long lasting negative effects. It does not cover hazardous waste management or hazardous substances management, although proper management in these fields helps to prevent accidents.

In addition to the work presented in this paper, it is to be noted that regional organizations (UN Economic Commission for Europe, Economic and Social Commission for Asia and the Pacific, Economic Commission for Latin America and the Caribbean) are also carrying out some projects dealing with industrial accidents in their regions.

## International Atomic Energy Agency (IAEA)

Address: PO Box 100  
A-1400 Vienna  
Austria  
Telephone: (43 222) 2360  
Telex: 1-12645

### 1 Mandate and Objectives

In view of IAEA's statutory obligation to establish standards of safety for radiation protection, the Agency formulates internationally agreed guidelines and assists Member States in establishing and implementing national radiation protection systems.

### 2 Achievements

The IAEA has set up several mechanisms to help prevent or respond to accidents in the nuclear field:

- 2.1 The conclusion of two conventions: on early notification of a nuclear accident and assistance in the case of a nuclear accident or radiological emergency (1986). To support these conventions, the IAEA has set up an Emergency Response System (ERS).
- 2.2 Emergency planning and preparedness: The IAEA has published guidelines to assist countries constructing and operating nuclear facilities near national borders, which covers reportable events, integrated planning and information exchange in the case of transboundary release of radioactive materials.
- 2.3 Advisory missions: Since 1982, the IAEA has been sending, on request, Operational Safety Review Teams (OSARTs) to carry out evaluations of the operational safety of nuclear installations. More recently the IAEA has initiated "analysis of safety significant event teams" (ASSET) to be sent on request from Member States.
- 2.4 Incident reporting system: IAEA operates an Incident Reporting System for nuclear power plants, which according to recent decisions will be extended to other nuclear installations.
- 2.5 In co-operation with the Nuclear Energy Agency of OECD, the IAEA has introduced, on a trial basis, the "International Nuclear Event Scale (INES)" for prompt communication to the public of the safety significance of events reported at nuclear power plants.

2.6 Since 1986, the IAEA has been co-operating with UNEP/IE PAC, UNIDO and WHO in a Programme on the Integrated Assessment and Management of Health and Environmental Risks of Energy and Other Complex Industrial Systems (the "Interagency Risk Management Programme"). The IAEA acts as scientific secretariat for this Programme. Achievements to date include:

- the preparation of a Procedural Guide to Integrated Risk Management and a Risk Prioritization Manual;
- the development of associated software, to help users implement the advice in the Manuals;
- practical activities in several countries - case study reports are available for North Bohemia (Czech and Slovak Federal Republic) and Copsa Mica (Rumania);
- the first interagency training course on comprehensive risk assessment and management, held in January 1992 in Schiedam (The Netherlands).

### 3. Ongoing and Foreseen Activities

The intersecretariat steering committee is recommending to the four organizations concerned that the Interagency Risk Management Programme should be continued. In its new phase, the emphasis will be on encouraging use of the tools which have already been developed, through training and technical assistance.

## International Labour Officer (ILO)

Address: 4 route des Morillons  
CH-1211 Geneva 12  
Switzerland  
Telephone: (41 22) 799 61 11  
Telex: 415647 ILO CH  
Telefax: (41 22) 798 86 85

### 1 Mandate and Objectives

The objective of the ILO Safety and Health Programme is to promote and support efforts to at the international, regional and national levels to reduce occupational accidents and diseases and to improve the working environment.

### 2 Achievements

- 2.1 The ILO has established many "International Labour Standards" relevant to industrial hazards. Convention N° 155 and Recommendations N° 164 concerning Occupational Safety and Health and Convention N° 161 and Recommendations N° 171 concerning Occupational Health Services lay down basic principles for occupational safety and health. In June 1990 international Labour Conference adopted Convention N° 170 and Recommendations N° 177 concerning Safety to the Use of Chemicals at Work.
- 2.2 Through the Occupational Safety and Health Branch the ILO participates in the International Programme on Chemical Safety (IPCS), which is a joint ILO/WHO/UNEP endeavor concerned with all aspects of Chemical safety.
- 2.3 The ILO International Occupational Safety and Health Information Centre (CIS) provides information on workplace hazards and their control, including legislation, training materials and safety data sheets. CIS issues a bulletin "Safety and Health at Work", CD-ROMs and information packages and provides on-line services. It is the ILO's focal point for UNEP's INFOTERRA network of national environment information centers and actively uses INFOTERRA's facilities to disseminate information on chemicals. CIS further collaborates with over 70 national CIS centers with respect to the collection, processing and dissemination of information as means to improve the working environment and the general environment. Chemical Safety Sheets available from ILO contain full information, in several languages, about more than 100,000 chemicals. Each of them gives detailed advice on chemical hazards

and precautionary measures including those related to waste removal and disposal. This collection is available on paper and partly in magnetic format, on CD-ROMs and on-line as well as in the form of microfiches.

- 2.4 The ILO has established the International Occupational Safety and Health Hazard Alert System which disseminates rapidly, through a world-wide network of 100 national focal points, scientific and technical information on newly discovered or suspected occupational hazards.
- 2.5 The ILO has published a practical manual on major hazard control. The manual sets forth comprehensive guidelines on the planning and management of preventive programmes at national and enterprise levels. It explains how to identify major hazard installations and describes all the components of an effective system to prevent industrial disasters. Extensive information is also provided on planning for emergencies, both on site and in the surrounding neighborhood.
- 2.6 A code of practice on the prevention of major industrial accidents was published in 1991. The code was designed to assist member States in setting a national system and legislation for the prevention of major industrial accidents. Other recent publications are a guide to safety and health in the use of agrochemicals and a training manual on safety in the use of chemicals. These materials will be useful for the practical training of workers handling and using chemicals.
- 2.7 The ILO has executed a project for the establishment of major hazard control system in India. Similar projects were also executed in Indonesia and Thailand.
- 2.8 A series of national and regional workshops on chemical safety and the prevention of industrial disasters were organized by the ILO to promote the application of international standards on chemical safety and the promotion of setting up national system for major hazard control. These included: regional workshop on the prevention of major accidents (Bangkok, January 1991); regional seminar on safety in the use of chemicals at work for Asia and the seminar on safety in the use of chemicals at work for Asia and the Pacific (Bangkok, January 1991); sub regional workshops on safety in the manufacture and the use of chemicals for Central and Eastern European countries (Budapest, May 1991; Sec, CSFR, October 1991; Wroclaw, Poland, October 1991); national workshops on the prevention of major industrial accidents (Nigeria, August 1991; Turkey August 1991; USSR, September 1991; Brazil, October 1991; Korea, October 1992).

### 3. Ongoing and Foreseen Activities

#### 3.1 Standard Setting

The subject of the prevention of major industrial accidents was discussed at the 1992 International Labour Conference with a view to adopting new international standards. New standards are envisaged to be adopted at the 1993 International Labour Conference after the second discussion.

A code of practice on safety in the code of practice was adopted by the Meeting of Experts in March 1992 and will be published in early 1993.

#### 3.2 Technical co-operation

The ILO is at present executing a number of technical co-operation projects for the improvement of working conditions and environment assisting in strengthening the national capacity for the prevention of occupational accidents and diseases. The promotion of safety in the use of chemicals at work is one of the important elements of these projects.

#### 3.3 International Programme for the Improvement of Working conditions and Environment (PIACT):

Several promotional activities, both at national and regional levels, are being undertaken within the PIACT Programme for the prevention of major industrial accidents. These activities include the provision of technical advisory services to the governments and employers' and workers' organizations and the organization of various meetings.

#### 3.4 Harmonization of the Classification and Labelling Systems for Hazardous Chemicals:

A Coordinating Group for the Harmonization of Chemical Classification Systems was established within the UNEP/ILO/WHO International Programme on Chemical Safety (IPCS). The main objective of the Coordinating Group is to catalyze the development of a globally harmonized classification and hazard communication system for chemicals, which is one of the programme areas of Chapter 19 of Agenda 21 adopted by the UNCED. The ILO provides the secretariat of the Coordinating Group.

## International Maritime Organization (IMO)

Address: 4 Albert Embankment  
London SE 1 78R  
United Kingdom  
Telephone: (071) 735 7611  
Telex: 23588 IMO LDN G  
Telefax: (071) 587 3210

### 1 Mandate and Objectives

- 1.1 In accordance with Article I of the Convention on the International Maritime Organization, the purposes of the Organization are inter alia to provide machinery for co-operation among governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships; and to deal with administrative and legal matters related thereto.
- 1.2 Article I also provides for the Organization to consider any matters concerning shipping and the effect of shipping on the marine environment that may be referred to it by any organ or specialized agency of the United Nations.

### 2 Achievements

- 2.1 The prevention and mitigation of damage to human health and the marine environment from the maritime transportation and related handling of hazardous substances forms a significant element of IMO's mandate and is the subject of comprehensive and effective international rules and regulations developed under the auspices of the Organization. Such international instruments aim to ensure that ships are built, equipped and operated in a safe and environmentally friendly manner and to limit the damage to the marine environment in the event of ships getting involved in collisions, strandings or other incidents involving structural damage. The instruments inter alia provide for the notification in a timely manner of accidents involving hazardous substances on board ship or in a port area to coastal States that may be affected. Examples of such instruments are the two major IMO conventions:

- International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended; and



- International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), as amended.

2.2 IMO has also promulgated international guidelines, codes, standards and recommendations dealing with the prevention of marine pollution and with emergency preparedness and response to maritime accidents involving hazardous substances.

Examples of these concerning marine pollution prevention are:

- International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code);
- Standards for Procedures and Arrangements for the Discharge of Noxious Liquid Substances; and
- International Maritime Dangerous Goods (IMDG) Code.

In the field of preparedness and response these include:

- Emergency Procedures for Ships carrying Dangerous Goods. (Procedures to be followed in case of incidents involving dangerous substances).
- Recommendations on the Safe Transport, Handling and Storage of Dangerous Substances in Port Areas: covers acceptability of dangerous substances in ports, advance notification, inspection, emergency procedures, fire precautions, reporting, compatibility, containment, etc.
- Medical First Aid Guide for Use in Accidents involving Dangerous Goods (Chemical Supplement to International Medical Guide for Ships): provides first aid advice for exposure to approximately 130 chemical groups.
- Manual on Chemical Pollution: Section 1 covers identification, assessment and hazard evaluation, emergency response, personnel safety and health and response organization and training. Section 2 covers search and recovery of packaged goods lost at sea.
- Guide to International Assistance in Marine Pollution Emergencies contains the following: Assistance which could be made available to other States; Marine pollution response arrangements within the State requesting assistance; Assistance which can be made available through: United Nations specialized agencies and related organizations. Regional intergovernmental organizations, and non-governmental organizations; Roles and functions of entities which could be involved in a marine pollution emergency and its aftermath; and a survey of information systems in OECD member countries covering accidents involving hazardous substances.

2.3 In November 1990 the Conference on International Co-operation on Oil Pollution Preparedness and Response (OPPR Conference) was held under the auspices of IMO, which was concluded with the adoption of the International Convention on Oil Pollution Preparedness, Response and CO-operation (OPRC Convention), 1990. The primary purpose of this Convention is to facilitate international co-operation and mutual assistance in the event of major marine pollution emergencies regardless of source. Although the Convention is at present limited to oil pollution, provision has been made for its extension to hazardous substances other than oil in the near future.

### 3. Ongoing and Foreseen Activities

3.1 The United Nations Conference on Environment and Development, held in Rio de Janeiro from 3 to 14 June 1992, adopted the Rio Declaration on Environment and Development and Agenda 22, a comprehensive plan of action for the global community extending to the next century. IMO's interests are reflected in a number of programme areas covered by Agenda 21 and it will be actively involved in effective follow-up of the relevant aspects of the Conference.

3.2 An important part of IMO's present work is associated with the prevention of air pollution caused by ozone depleting and greenhouse gases, volatile organic compounds and the burning of fuel oil contaminated with sulphur and heavy metals.

3.3 In addition to a regime of compensation in case of oil pollution damage, work is ongoing to establish similar compensation schemes in cases of damage involving hazardous noxious substances.

3.4 An important element of IMO's work is the promotion of technical co-operation and the provision of technical advice and training aimed at major marine pollution incidents. In recent years increased attention has been given by IMO to dealing with accidents involving hazardous substances.

3.5 IMO, in co-operation with UNEP and other international organizations, has been actively involved in the development of regional Protocols or Agreements that provide for the timely notification of marine pollution emergencies likely to affect neighboring States. These Agreements also provide the legal framework for mutual assistance in case of accidents involving hazardous substances or having the potential for doing so. In some eleven so-called "regional seas" areas such Agreements are in force or are under development.

3.6 In the Mediterranean Sea area, the terms of reference of the Regional Oil Combating Centre, which is operated by IMO on behalf of UNEP, were widened in 1987 to include hazardous substances other than oil.

With funding from the IMO/SIDA Programme for the Protection of the Marine Environment, IMO, in co-operation with the International Tanker Owners Pollution Federation (ITOPF), the Commission of the European Communities (CEC) and Videotel Marine International Ltd., produced a series of five training films/videos entitled "Response to Marine Oil Spills", some 100 sets of which have been made available, together with support material, to developing countries. A further 100 sets have been purchased by oil companies, marine terminals, training centers, etc.

The production of a series of films/videos with supporting documentation on Planning and Response to Chemical Spills has already been finalized.

The above initiatives are part of a concerted effort by IMO to provide a similar coverage in terms of technical documentation, contingency planning and advisory services for chemical spillages as has been developed in the past for marine oil spills.

## United Nations Department of Humanitarian Affairs-UNDRO

Address: Palais des Nations  
1211 Geneva 10  
Switzerland  
Telephone: (41 22) 917 1234  
Telex: 414242 DRO CH  
Telefax: (41 22) 917 0023

In April 1992, the UN Secretary-General established a new Department of Humanitarian Affairs with the responsibility for providing a rapid and well coordinated response to major and complex emergencies in order to save lives and contribute to rehabilitation and development for the affected populations. The Department incorporates the former UNDRO as well as former emergency units for Africa, Iraq and South East Asia.

Resolution 46/182 provides the United Nations with four instruments for co-ordination: The Office of the Emergency Relief Coordinator, the Central Emergency Revolving Fund, the Inter-Agency Standing Committee and the Consolidated Appeals Process. These instruments enhance the capacity of the United Nations to respond promptly in complex emergency situations with an effective division of labour between the executing agencies.

The Department operates in the grey zone where security, political and humanitarian concerns converge. Policy co-ordination, policy planning and early warning functions are performed in New York where the Department works closely with the deliberative organs of the United Nations and with the political, financial and economic departments of the Secretariat. The Geneva Office, on the other hand, acts as the focal point for emergency operational support and relief co-ordination, as well as for disaster mitigation.

### DHA-UNDRO APELL related activities 1990-1992

#### Colombia

DHA-UNDRO has been implementing the Programme of Disaster Mitigation Activities (including technological disasters) in Colombia since 1988.

The key activities of this programme which have been implemented since its initiation can be summarized as follows:

1. Creation of an information center on the safety of chemical products (CISPROQUIM). The Center's duty officer can be contacted by phone 24 hours every day in order to alert/report technological accidents and/or obtain information concerning dangerous substances.

2. Creation of National Advisory Group on Industrial Risks. The Group's members are representatives of major chemical plants, emergency agencies (firefighters, Red Cross, Civil Defence, Police, National Disaster Office, Colombian Security Council, etc), national health system, major transport institutions.
3. National workshop on manipulation, transportation and storage of dangerous substances.
4. Publication of "*Guidelines for Dangerous Substances Accidents*".
5. Training courses on handling accidents involving dangerous chemical products.
6. Workshop on Water Contamination Legislation.
7. Signature of "*Letter of Understanding*" on Technological Accidents and Disaster Mitigation between UNDR0 and UNEP/IE PAC. The principal objectives of this joint initiative are:
  - (a) To increase community awareness of the possible hazards involved in the manufacture, handling and use of hazardous materials.
  - (b) To develop corresponding emergency response plans in local communities, coordinated with natural disaster response plans.
8. Seminar on industrial safety focusing on the transport of dangerous substances.
9. International consultancy mission to advise national authorities on methods for establishing the nature and extent of major dangerous substances transport risks and for producing adequate risk maps and regulations.

The first National APELL Workshop organized by UNEP took place in November 1990 and was supported by UNDR0.

#### Peru

In July 1992, DHA-UNDR0 initiated a Disaster Mitigation Project in Peru. The project document envisages a series of technological accident mitigation activities (creation of dangerous substances information center and data bank, etc.).

Preliminary discussions were held between UNEP/IE PAC and DHA-UNDR0 concerning the organization of a National APELL Workshop in Peru.

## United Nations Environment Programme (UNEP)

Address: PO Box 30552  
Nairobi  
Kenya  
Telephone: (254 2) 33 39 30  
Telex: 22068 UNEP KE  
Telefax: (254 2) 52 07 11

## Industry and Environment Programme Activity Centre (IE/PAC)

Address: Tour Mirabeau  
39-43 quai André Citroën  
75739 Paris Cedex 15  
Telephone: (33 1) 40 58 88 50  
Telex: 204997  
Telefax: (33 1) 40 58 88 74

## International Register for Potentially Toxic Chemicals (IRPTC)

Address: Palais des Nations  
CH-1211 Geneva 10  
Switzerland  
Telephone: (41 22) 798 58 50  
Telex: 28877  
Telefax: (41 22) 733 26 73

## United Nations Centre for Urgent Environmental Assistance (UNCUEA)

Address: Palais des Nations  
CH-1211 Geneva 10  
Switzerland  
Telephone: (41 22) 789 40 73  
Telex: 28877  
Telefax: (41 22) 789 40 82

ooOoo

### 1 Mandate and Objectives

UNEP is a catalyzing not an implementing agency. Its role in the industrial accidents field, as in other areas, is to create awareness of the problems, help formulate strategies and co-ordinate UN activities. Accordingly UNEP convened a Thematic Joint Programming Meeting in April 1987 in Geneva, at which the various UN agencies concerned with industrial

accidents were present. They prepared medium-term objectives and strategies to 1995 in the field of industrial safety. Activities described underneath have been developed in 1991/1992, further to governing council decisions 16/9 concerning the United Nations Center for Urgent Environmental Assistance, 16/32 on industrial accidents, 16/35 on toxic chemicals.

## 2 Achievements

### 2.1 UNEP IRPTC/PAC

UNEP IRPTC has built a global information exchange network and a central database for the purpose of assessment and control of environmental hazards. The database contains special files on hazardous properties of chemicals and on spills, treatment of poisoning and treatment and disposal of waste chemicals; the database is now available on diskette. IRPTC also operates a query-response service and is publishing data compilations related to hazards posed by chemicals.

### 2.2 UNEP OCA/PAC

UNEP Regional Seas Programme, in co-operation with IMO and UNIDO, held a series of expert meetings in Dakar on industrial hazards prevention in the WACAF region.

### 2.3 UNEP IE/PAC

In 1981 UNEP IE/PAC published Guidelines on Risk Management and Accident Prevention in the Chemical Industry. IE/PAC also prepared a series of guidelines for environmental management of various industrial sectors, some of which address safety questions.

Technical Report Series N°3, "Storage of Hazardous Materials", was published in 1990.

Two special issues of the UNEP/IE PAC review "Industry and Environment" dealt specifically with the chemical industry and accident prevention (Volume 11 N° 2 and N° 3).

UNEP has also participated in and contributed to programmes undertaken by other UN agencies (see pages concerning UNDRO, WHO, UNCTC, IPCS, UNIDO). It is involved in a joint project with WHO, IAEA and UNIDO on the assessment and management of environmental risks from energy and other complex industrial systems. A Letter of Understanding has also been signed with UNDRO.

UNEP/IE PAC, in co-operation with other international organizations and in particular: the OECD, the Commission of the European Community and other United Nations Organizations, and with the support of the chemical industry, initiated in 1988 the APELL process (Awareness and

Preparedness for Emergencies at Local Level). APELL activities during 1991-1992 are detailed in a separate report. At the end of the APELL programme's fourth year, the APELL Handbook is available in thirteen languages and over 6,000 copies have been distributed by UNEP/IE PAC in English, French and Spanish. A total of 15 APELL Seminar/Workshops have been held: two at regional, seven at national and six at local level. The APELL Newsletter has reached its fifth issue, with the sixth in preparation; it now appears in French and Spanish as well as in English and is sent to over 1,000 APELL contacts worldwide, as well as to 10,000 subscribers to IE/PAC's "Industry and Environment Review". "Hazard Identification and Evaluation in a Local Community" has been published in English, with help from the Swedish government, as part of UNEP's Technical Report Series; French and Spanish versions are in preparation.

UNEP/IE PAC and OECD have jointly prepared and published the "International Directory of Emergency Response Centers". UNEP and OECD have signed a Letter of Understanding to continue working together in the field of industrial accident prevention, preparedness and response. Currently, text is being prepared by UNEP to supplement the OECD "Guiding Principles for Chemical Accident Prevention, Preparedness and Response" for use by Eastern European and developing countries; when this is ready, IE/PAC will distribute the "Guiding Principles" and the supplementary text together to non-OECD countries.

#### 2.4 United Nations Center for Urgent Environmental Assistance (UNCUEA)

A blue-print of a detailed plan of action, which lays the foundation for specific activities to be pursued by UNCUEA during its experimental phase, has been finalized. This process involved the co-operation of all relevant UN and other international bodies. Permanent contacts have been established with 38 selected countries which were asked to participate during the experimental stage. To date the UN Centre has received 19 official nominations of national focal points responsible for cooperation with UNCUEA.

Work has been started on the elaboration of draft model agreements, memoranda of understanding or other forms of appropriate legal arrangements on cooperation between UNCUEA and governments and relevant international organizations. An agreement with Norway was signed on 23 September 1992 in Oslo. This agreement places national experts and specialized equipment at the disposition of UNCUEA in response to international requests for assistance.

A mechanism the "Operations Desk" has been developed by UNCUEA to manage information coherently and reliably in disaster situations. This computer system allows information from many sources to be scrutinized and disseminated.

A questionnaire on existing national capabilities for environmental emergency response was prepared by UNCUEA in close collaboration with relevant UN organs and national experts and sent to many countries.

The UNCUEA close practical relations have been established with the Commission of the European Communities OECD as well as with all



relevant UN agencies, UNEP bodies and other international organizations.

### 3. Ongoing and Foreseen Activities

The various activities will be developed by UNEP as a follow up to agenda 21:

- IRPTC will develop its programme as per chapter 19 of Agenda 21;
- IE/PAC will develop the APELL Programme as per the request in Agenda 21 and following up the recommendations of the Senior Level Expert Group Meeting to be presented at the 17th Governing Council;
- the UNCUEA will continue its work (preparation of a UN Emergency Plan involving all UN bodies, simulation exercise, roster of consultants and equipment) and also report to the UNEP 17th Governing Council.

The following United Nations Organizations have not provided updated accounts of their activities in the field of industrial accidents:

IPCS	International Programme on Chemical Safety
UNCTC	now Transnational Corporations and Management Division of the Department of Economic and Social Development.
UNIDO	United Nations Industrial Development Organization
WHO	World Health Organization
World Bank	

Their known activities as at December 1990 are reproduced in the following pages.

WHO/ILO/UNEP

International Programme on Chemical Safety (IPCS)

Address: CH-1211 Geneva 27  
Switzerland  
Telephone: (43 22) 791.21.11  
Telex: 27821 OMS

1. Mandate and Objectives

In 1980, WHO, ILO, and UNEP established an interagency co-operative programme in the field of chemical safety: IPCS, International Programme on Chemical Safety, dealing with the assessment of health risks of potentially toxic chemicals and the prevention of hazards due to uses of chemicals, including storage and transport.

2. Achievements

2.1 With regard to prevention:

- IPCS has published an annotated checklist of "categories of information useful for the identification of hazards during the manufacture, storage and transport of chemicals";
- IPCS is issuing Environmental Health Criteria Documents and Health and Safety Guides on priority toxic chemicals;
- IPCS is preparing International Chemical Safety Cards, summarizing on one page essential data on product identity, symptoms of poisoning, safety procedures, and first aid.

2.2 With regard to response:

- IPCS organized with the Scientific Group on Methodologies for the Safety Evaluation of Chemicals (SGOMSEC), a meeting on chemical accidents, which took place in India in 1987. The objective of the meeting was to examine methodologies useful in reducing injury of both human and non-human biota.
- IPCS organized a World Conference on Chemical Accidents, jointly with the Instituto Superiore Sanita and WHO/EURO, in July 1987, in Rome. The proceedings have been published.

3. Ongoing and Foreseen Activities

3.1 With regard to prevention:

- IPCS is preparing health and safety guides for chemicals, providing practical advice on matters such as safe storage, handling and disposal of chemicals, accident prevention and health protection measures, first-aid and medical treatment in cases of exposure and clean-up procedures.
- IPCS organizes courses for the training of workers and middle management in prevention of chemical accidents.

3.2 With regard to response:

- IPCS is establishing, with the financial support of IDRC, a computerized information package on diagnosis and treatment of poisonings by chemicals;
- IPCS is evaluating the efficacy of antidotes used in treatment of poisonings by chemicals as well as their availability, and is preparing a series of monographs;
- IPCS has finalized a consensus document: Guidelines on Health;
- IPCS is preparing a roster of experts available immediately to respond to chemical hazards;
- IPCS is preparing a handbook on poisonings for use by the non-specialist medical and paramedical profession;
- IPCS is preparing a manual on analytical toxicology for use by developing country laboratory hospitals.

United Nations Centre on Transnational Corporations (UNCTC)  
(updated version not received)

Address: United Nations  
New York, NY 10017  
U.S.A.  
Telephone: (212) 754.31.60  
Telex: UNCTNC 661062

1. Mandate and Objectives Relating to the Environment

UNCTC seeks to further understanding of the nature of transnational corporations and of their environmental effects. In particular, the Centre provides support to governments seeking advice on the environmental aspects of foreign direct investment projects, including assistance in the negotiation of contracts with transnational corporations and other suppliers of potentially hazardous technologies, with special focus on industrial process safety. At the 42nd session of the General Assembly, in its resolution based on the review of the Environmental Perspective to the Year 2000 and Beyond, UNCTC received a specific mandate related to environmental protection. The Assembly felt that UNCTC ought to help facilitate a process wherein "host Governments should institute policies and regulations to ensure sound environmental management of transnational investments. In agreements on transnational including corporate investments, Governments, through appropriate controls, should ensure that information and technology on environmental management will be provided specifying the responsibilities of the parties concerned. In .... transnational corporations should implement programmes in the host countries to minimize the environmental hazards of their activities" (A/RES/42/186, para 68i).

2. Achievements

- 2.1 The Centre has been working on environmental aspects of the activities of transnational corporations since the early 1980s. In 1983, the Centre began co-operating in the preparation of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments in accordance with General Assembly resolution 37/137 of 17 December 1982 and subsequent resolutions. In 1984, a technical paper entitled "Environmental Aspects of the Activities of Transnational Corporations: A Survey" was completed.
- 2.2 In 1985 UNCTC jointly with UNEP co-sponsored an Informal Seminar to further International Co-operation for the Environmental Management of Industrial Process Safety and Hazards.

2.3 In 1986-1988, the Centre presented to the United Nations Commission on Transnational Corporations three reports on Transnational Corporations and Issues Relating to the Environment. The 1986 report provided an overview of the activities of transnational corporations related to the environment of host countries and the measures being taken to increase international co-operation in the environmental management of industrial process safety and hazards. The 1987 report described some of the major approaches currently used in the development of international standards for industrial process safety as it affects transnational corporations, and identified some of the issues with regard to the allocation of responsibilities and liabilities for environmental protection and safety between these corporations and States. The 1988 report explains the environmental policies and practices of these corporations in the light of internationalization of operations and externalization of costs and discusses further the allocation of responsibilities, liabilities, and compensation for transboundary environmental damage. The report also identifies various responses in the 1980s of individual transnational corporations to avoid industrial accidents and/or to minimize their consequences. The same themes are covered in the environment chapter of UNCTC's major 5 year study on the impact of transnational corporations (Transnational Corporations in the World Development: Trends and Prospects).

2.4 UNCTC provided assistance in the final review of the report of the World Commission on Environment and Development, particularly with regard to the industry chapter and issues relating to transnational corporations.

2.5 UNCTC provides technical assistance to Governments in reviewing proposals from transnational corporations on foreign direct investment and technology acquisition, including matters regarding the environmental impacts of such investments and technologies. In addition the Centre assists Governments and regional organizations in the formulation of policies and regulations regarding transnational corporations and the protection of the environment.

### 3. Ongoing and Foreseen Activities

3.1 UNCTC continues to provide support to the inter-governmental negotiations of the United Nations Code of Conduct on Transnational Corporations. The draft code contains specific provisions on environmental protection regarding the observance of relevant national laws and policies, development of international standards and

disclosure of information on the hazardous effects of products, processes and services.

- 3.2 Volume Two of Anthology of International Policies and Programmes of Industrial Process Safety and Hazards is under preparation. It will focus on policies and programmes of regional inter-governmental organizations, selected individual governments, industry and non-governmental organizations.
- 3.3 UNCTC is currently developing a series of proposals on the implementation of sustainable development, including three which focus on various aspects of accident prevention and emergency response. Two of these proposals are research-oriented. One seeks to understand the various methods used by transnational corporations in their international management of environmental protection while the second examines the interface between foreign affiliates and the host government agencies which regulate the protection of the environment. In addition to these research proposals, the Centre is also contributing in the policy arena to the evolution of a framework for the assessment of technology risk. The Centre continues to carry out these activities in close co-operation with other international organizations.

United Nations Industrial Development Organization (UNIDO)

Address: Vienna International Centre  
P.O. BOX 300  
A-1400 Vienna  
Telephone: (43 222) 21131  
Telex: 135612  
Telefax: (43 222) 232156

1. Mandate and Objectives

The primary objective of UNIDO is to promote and accelerate industrial development in developing countries. Article 2 of the Constitution refers to the Organization's functions directing its action towards harmonious and balanced industrial development, solving industrialization problems, and advising on and assisting in the exploitation, conservation and local transformation of the natural resources of developing countries for the purpose of furthering their industrialization.

UNIDO's activities to protect the environment from pollution by industry, range from technical assistance projects provided in the form of on-the-spot expertise and equipment, workshops and consultations to studies and research and the development/transfer of technologies.

2. Achievements and ongoing Activities

2.1 Technical assistance

A major aspect of UNIDO's activities in protecting the environment and preventing industrial accidents is the control of hazardous wastes and dangerous chemicals. In particular, UNIDO emphasizes waste reduction and the development of low-waste technologies. Within its programme on hazardous waste management, UNIDO aims at minimizing the environmental risk from waste generation and disposal while ensuring maximal resource conservation as, for example, in a number of projects promoting the recycling of waste materials.

In November 1988, a World Conference on Industrial Risk Management and Clean Technologies was organized in Vienna by UNIDO in co-operation with the International Association for Clean Technology (IACT) and other international and national organizations. In June 1990, an International Conference on Pollution Prevention was held with IACT. This one took place in Washington, D.C.

UNIDO assists developing countries in their environmental planning, environmental impact assessment and the elaboration of integrated planning concepts for industrial areas. UNIDO also provides technical assistance on industrial and plant safety, including emergency planning systems.



A major portion of UNIDO's Environment Programme, approved in May 1990, is devoted to promotion of clean technologies and pollution abatement.

2.2 Studies and Research

UNIDO in 1988 prepared an industrial emergency game which consists of simulation exercises for training purposes to improve preparedness for accidents in industrial plants.

Environmental considerations including industrial hazards are also incorporated as a regular feature in UNIDO's technical studies.

3. Planned Activities

UNIDO's draft medium-term plan 1990-1995 sets out its programme for environmental resources management, pollution control from industrial sources, industrial safety and technology transfer; thereby aiming at improving environmental quality of air, water and soil. Institutional capabilities will be built up and an integrated management approach fostered.

Future activities of UNIDO in these areas will include, inter alia, conferences, consultations, workshops, and other training, and transfer of technologies such as the selection and management of hazardous technologies.

During 1991 it is expected that two workshops will be held by UNIDO in conjunction with others. One will be a workshop on Industrial Accident Prevention, in Germany, and the other a two-week workshop on Risk Management for Industrial Safety Managers, to be held in Sweden. Both will be aimed at developing country industrial personnel.

In co-operation with other organizations of the UN system, UNIDO will continue its work in biotechnology safety. UNIDO is a regular member of the Joint UNIDO/WHO/UNEP informal working group on Biotechnology Safety. Recently an agreement was reached with UNEP through which they would co-sponsor several training courses in the programme of UNIDO's International Center for Genetic Engineering and Biotechnology (ICGEB).

World Health Organization (WHO)

Address: CH-1211 Geneva 27  
Switzerland  
Telephone: (41 22) 791.21.11  
Telex: CH-27821 OMS  
Telefax: (41 22) 7910746

1. Mandate and Objectives

The prevention of health effects of industrial hazards is mandated through: the programme on control of Environmental Health Hazards; on Worker's Health; and, as a major interagency co-operative programme, the International Programme on Chemical Safety.<sup>1/</sup>

The ongoing objective of WHO is to protect and promote human health through national, community, family and personal measures for the prevention and control of conditions and factors in the environment that adversely affect health.

The role of WHO is to keep governments informed of the environmental health problems involved and to collaborate with Member States in the development and implementation of national policies, programmes and plans for instituting adequate preventive or control measures.

2. Achievements

- 2.1 Since the mid-1960s WHO has been collaborating with governments in the provision of advisory services through long-term and short-term staff and the conduct of national and regional workshops and seminars on industrial hazards control.
- 2.2 WHO published in 1981 Guidelines on Contingency Planning for Emergencies and on Prevention Measures and Response to Chemical Accidents.
- 2.3 Through IPCS, WHO organized in collaboration with the Scientific Group on Methodologies for the Safety Evaluation of Chemicals (SGOMSEC) a workshop to evaluate and improve the methodologies for damage assessment and reduction in case of chemical accidents, in 1987.<sup>1/</sup>
- 2.4 Through its European Regional Office, WHO organized an International Conference on "Chemical Accidents" jointly with the Instituto Superiore di Sanita and IPCS in Italy, in 1987.<sup>1/</sup>
- 2.5 Through its European Regional Office, WHO has established a task force of assessors who will be sent, on request, to help when major accidents have occurred. The task force includes experts in such fields as general management, environmental health and toxicology.

---

<sup>1/</sup>See p. Elements concerning IPCS.

- 2.6 Accidents causing release of toxic chemicals result in incidents of acute poisonings. Prevention of acute poisonings was the subject of a Working Group held in Munich in 1985, organized by the WHO Regional Office for Europe in co-operation with IPCS and CEC with the support of the Government of Germany. A report including recommendations regarding role and functions of health services and various partners in preventing accidental poisonings was published jointly by WHO/EURO, IPCS and CEC in the Environmental Health Series of WHO/EURO (Environmental Health Series, N° 11, 1986).
- 2.7 Working Group on High Risk Circumstances was held in Münster (FRG) in 1986, organized by the WHO Regional Office for EURO in co-operation with IPCS and CEC, with support of the Government of the Federal Republic of Germany. The Working Group analyzed circumstances which create high risk of accidental acute poisonings and identified populations at particularly high risk. A report including conclusions and recommendations of the Working Group has been published in the WHO/EURO Environmental Health Series N°. 28, 1987.

3. Ongoing and Foreseen Activities

- 3.1 WHO, through its European Regional Office:
- is preparing a report on the Working Group on High Risk Circumstances;
  - is preparing for an epidemiological study on acute poisoning;
  - in collaboration with the Istituto Superiore di Sanita in Rome, will develop a study on circumstances and causes of accidents associated with the release of chemicals.

World Bank

Address: 1518 H Street N.W.  
Washington, D.C. 20433  
U.S.A.  
Telephone: (202) 477.1234  
Telex: 248423  
Telefax: (202) 477.6391

1. Mandate and Objectives

The Bank lends funds for development of economic facilities. By so doing, it promotes the flow of capital internationally for productive purposes. The Bank has thus to make sure that the facilities funded are designed and operated safely.

2. Achievements

- 2.1 Publication of Guidelines for Identifying, Analyzing and Controlling Major Hazard Installations in Developing Countries, which is being used for the projects funded by the Bank.
- 2.2 Publication of a manual of industrial hazards assessment techniques.
- 2.3 Publication of a manual on the safe disposal of hazardous wastes in developing countries (together with WHO and UNEP).
- 2.4 Publication of a report "Why Do Complex Organizational Systems Fail?", focusing on safety and risk management.
- 2.5 Sponsoring, in February 1987, jointly with US/EPA and the American Institute of Chemical Engineers, of an International Symposium on Preventing Major Chemical Accidents, which took place in Washington, D.C.
- 2.6 With co-sponsorship from the Swedish, Danish and Dutch governments, the Bank held two workshops on Management/Organizational/Institutional Factors in Major Accidents, in 1988 and 1989.

3. Ongoing and Foreseen Activities

- 3.1 The World Bank is currently developing a PC-based Integrated Safety Audit System for major hazard installations.
- 3.2 With assistance from the Danish Consultant Fund, the Bank is developing a research programme to determine the critical management/organizational factors in major accident prevention.
- 3.3 An integrated risk management approach is being developed for application in World Bank lending operations.