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**CONFERENCE OF THE PARTIES
TO THE CONVENTION ON THE TRANSBOUNDARY
EFFECTS OF INDUSTRIAL ACCIDENTS**

**MEETING OF THE PARTIES
TO THE CONVENTION ON THE PROTECTION AND
USE OF TRANSBOUNDARY WATERCOURSES AND
INTERNATIONAL LAKES**

**INDUSTRIAL SAFETY AND WATER PROTECTION
IN TRANSBOUNDARY RIVER BASINS**

INTERNATIONAL WORKSHOP AND EXERCISE

(Tiszaújváros, Hungary 3-5 October 2001)

REPORT*

Introduction

1. The International Workshop and Exercise took place from 3 to 5 October 2001 in Tiszaújváros (Hungary), located in the Tisza river basin, at the invitation of the Government of Hungary and the city of Tiszaújváros.
2. The Workshop and Exercise were held within the framework of the UNECE Conventions on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention) and on

* This document has not been formally edited.

the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). They have been organized by the Hungarian National Directorate General for Disaster Management, the Hungarian Ministries of Environment, of Economic Affairs, and of Transport and Water Management, the Tisza Chemical Works and the local Defence Committee of Tiszaújváros.

Objectives of the workshop and exercise

3. The key objectives of the workshop and exercise were to:
 - (a) Review the national and international regulations on prevention, preparedness and response to industrial accidents involving hazardous substances;
 - (b) Provide a forum for the exchange of experience in introducing and implementing preparedness and response measures;
 - (c) Provide a forum for the exchange of experience regarding civil defence organizations at local level;
 - (d) Demonstrate the role of civil defence organizations in emergencies;
 - (e) Demonstrate response systems and procedures for eliminating the consequences of major accidents involving hazardous substances and accidental water pollution.

Participation

4. The International Workshop and Exercise was attended by some 250 participants from the following seventeen UNECE member countries: Austria, Armenia, Belgium, Croatia, Czech Republic, Georgia, Germany, Hungary, Italy, Netherlands, Poland, Slovakia, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Ukraine and Uzbekistan. A representative of the APELL Programme of the United Nations Environment Programme also attended.

5. The participation of representatives of some of the countries with economies in transition was sponsored by the Environmental Emergencies Section of the United Nations Office for the Coordination of Humanitarian Affairs as a result of the good working relationship that has been developed between the secretariat of the Industrial Accidents Convention and that Office.

Opening - welcome addresses

6. The opening ceremony was presided by Mr. Attila Tatár, Deputy Director General of the National Directorate General for Disaster Management.

7. Mr. Gyorgy Bakondi, Director General of the National Directorate General for Disaster Management opened the International Workshop and Exercise and welcomed all the participants on behalf of the Government of Hungary. He stressed the significance of introducing increased safety measures at hazardous activities in accordance with the Industrial Accidents Convention and the European Union's "Seveso II" Directive as measures to prevent industrial accidents. He expressed hope that the Workshop will contribute to enhancing the transboundary cooperation between Hungary and its neighbours to implement the bilateral tasks under the Convention. The discussions should also serve to facilitate such cooperation in other parts of the UNECE region.

8. Mr. Sergiusz Ludwiczak, speaking on behalf of the Environment and Human Settlements Division of the United Nations Economic Commission for Europe, stressed the importance of the workshop as a forum to share experience in establishing and implementing measures to prevent industrial accidents and to effectively respond to their consequences. In view of the recent accidents and their severe damage to human health and/or the environment there is still work ahead of us and many lessons to be learned. He underlined the fact that the Workshop and exercise are organized within the framework of both the Water and Industrial Accidents Conventions and called for even closer cooperation between those involved in the implementation of these agreements not only at the national but also at the local level on both sides of a border. He expressed appreciation to the Government of Hungary for organizing the workshop and exercise and for bearing their costs as a contribution to the implementation of the work plan under the Industrial Accidents Convention. He also expressed thanks to the Environmental Emergencies Section of the United Nations Office for the Coordination of Humanitarian Affairs for supporting the participation of representatives of some of the countries with economies in transition.

9. Mr. József Molnar, General Manager, Tisza Chemical Works expressed satisfaction on behalf of the local organizers that the International Workshop is taking place at Tiszaújváros and that the exercises are being held at one of the industrial facilities of the Tisza Chemical Works and along the Tisza River, which was affected by the Baia-Mare accidental cyanide spill in early 2000.

International Workshop

10. Fifteen presentations were made by invited speakers during the course of the workshop (names of the speakers and the titles of their presentations are included in annex I to this report), which was divided into the following three sessions:

(a) Session 1 - Transposition of the provisions of international agreements into national law – status of implementation;

(b) Session 2 – Measures for preventing industrial accidents involving hazardous substances;

(c) Session 3 – Measures for preparing for and responding to industrial accidents involving hazardous substances.

11. Each session was led by a Chairman assisted by a rapporteur (their names can also be found in annex I).

Exercises

12. The following two exercises:

(a) Exercise 1 at the Tisza Chemical Works Co. Ltd. - Chemical hazard;

(b) Exercise 2 at the Tisza River - Water hazard; took place on 4 October 2001. The concept of the two exercises was introduced by Mr. Lajos Kátai-Urbán from the National Centre for Industrial Accidents of the National Directorate General for Disaster Management. It can be found in annex II to this report.

Conclusions and recommendations

13. The Workshop was concluded by a round-table discussion with the participation of the Chairmen and rapporteurs of each session, during which the following conclusions and recommendations were endorsed. The participants to the workshop:

(a) Stressed the need for establishing a safety management policy at national level targeted at preventing industrial accidents and accidental water pollution by countries who do not yet have such a policy in place;

(b) Called on all UNECE member countries who have not yet ratified the Conventions on the Transboundary Effects of Industrial Accidents and on the Protection and Use of Transboundary Watercourses and International Lakes to do so without delay and apply their provisions in practice through putting in place appropriate national legislation. For some countries, ratification of both Conventions is one of the conditions in the process of their accession to the European Union;

(c) Recommended that bilateral transboundary cooperation and discussions regarding the implementation of the two Conventions, in particular on

the Industrial Accidents Convention, be established/enhanced at national and local levels;

(d) Underlined the importance of undertaking joint efforts between authorities (at appropriate levels), industry and the community in establishing and implementing effective preparedness measures. To this end demonstration projects in the transboundary context, involving the APELL programme, were encouraged;

(e) Appreciated the two exercises organized by Hungary within the framework of this Workshop and considered response exercises to simulated accidents and relevant training as an important element of maintaining effective response capabilities. To this end, recommended that further exercises be organized within the framework of both Conventions in a transboundary setting. The delegation of Poland expressed its willingness to organize such a transboundary exercise with one or more of its neighbours;

(f) Stressed the importance of rapid and efficient communication/ notification in emergency situations. Took note of the recent tests of the UNECE Industrial Accidents Notification System, performed by Croatia and by Hungary (the latter one was performed as part of the exercise). Recognizing that the results of the tests were not fully satisfactory, recommended that the System, as well as early warning systems under different international river commissions, be continuously tested and reviewed as to ensure their maximum efficiency;

(g) Recommended the use of different software tools facilitating and accelerating decision-making in emergency situations. Also took note of a rapid environmental and health risk assessment tool developed jointly by Italy and the World Health Organization;

(h) Expressed its appreciation to the host authorities for their hospitality and excellent arrangements made for the workshop and exercises.

14. The International Workshop and Exercise was closed by Mr. Pál Popelyák, Director of the Hungarian Center for Industrial Accidents, National Directorate General for Disaster Management, who thanked the participants for their valuable input into the discussions and the event's final outcome. He also expressed his appreciation to the UNECE secretariat for servicing and preparing the workshop and exercise.

Annex I

TITLES OF PRESENTATIONS AND LIST OF SPEAKERS

Session 1 - Transposition of the provisions of international agreements into national law – status of implementation

Objective: Share experience related to the implementation of the UNECE Conventions on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention) and on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and of the European Union's Council Directive 96/82/EC ("Seveso II" Directive) on the control of major-accident hazards involving dangerous substances

Chairman: Mr. Pál Popelyák, Director of the National Centre for Industrial Accidents, National Directorate General for Disaster Management, Hungary

Rapporteur: Ms. Anahit Alexandrian (Armenia)

1. UNECE Conventions as advanced tools for transboundary cooperation – status of ratification and implementation of the UNECE Convention on the Transboundary Effects of Industrial Accidents

Mr. Sergiusz Ludwiczak, Secretary of the UNECE Industrial Accidents Convention, Economic Commission for Europe

2. Implementation of the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes

Mr. Rainer Enderlein, Secretary of the UNECE Water Convention, Economic Commission for Europe

3. Hungarian experience in implementing the UNECE Industrial Accidents and Water Conventions and in transposing the "Seveso II" Directive

Mr. Attila Tatár, Deputy Director General of the National Directorate General for Disaster Management, Hungary

4. Bilateral transboundary cooperation as an instrument for implementing the Industrial Accidents Convention – the German experience

Mr. Lutz Dinkloh, Head of Division of Safety of Industrial Installations and Transport of Dangerous Goods, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany

Session 2 – Measures for preventing industrial accidents involving hazardous substances

Objective: Share experience on the role of national authorities, joint bodies (e.g. international river commissions) and industry in measures for preventing industrial accidents, with special emphasis on the establishment of a safety management system and the implementation of safety measures

Chairman: Mr. Ernst Berger, Head of Section on Safety of Installations, Agency for the Environment, Forests and Landscape, Switzerland

Rapporteur: Mr. Neil Manning (Italy)

1. Experience in establishing and enforcing a safety policy at national level

Mr. Michael Lindstedt, Swedish Rescue Services Agency

2. Experience with safety management systems (policy and implementation) at a hazardous industrial facility

Mr. László Vigh, Head of Division for Plant Safety, Tisza Chemical Works Co. Ltd., Hungary

3. Early-warning monitoring: a simulation model and its application in the Danube basin

Mr. Philip Huijser, Institute for Inland Water Management and Waste Water Treatment, Netherlands

4. An example of a methodology for rapid environment and health risk assessment of current and past industrial activities

Mr. Neil Manning, Ministry of Environment, Italy

5. Awareness and Preparedness for Emergencies at the Local Level (APELL) of the United Nations Environment Programme (UNEP) - a model for transboundary disaster prevention, preparedness and mitigation strategies

Mr. Ernst Goldschmitt, Senior Industry Consultant, UNEP/APELL Programme

6. "SEVEX" an integrated approach for off-site effect analysis and effective emergency planning

Mr. Alexis Dutrieux, ATM-PRO sprl, Belgium

Session 3 – Measures for preparing for and responding to industrial accidents involving hazardous substances

Objective: Share experience on the role of national authorities, joint bodies (e.g. international river commissions) and industry in measures for preparing for and responding to industrial accidents, with special emphasis on the establishment of on- and off-site emergency plans, both in the national and transboundary contexts and on the information of the public

Chairman: Mr. Ryszard Grosset, Deputy Chief Commander of the State Fire Service, Deputy Chief of the National Civil Defence, Poland

Rapporteur: Ms. Nena Hak (Croatia)

1. Experience in drawing-up and maintaining on-site emergency plans

Mr. Gyula Bihari, Head Of Technical Safety Department, BorsodChem Co., Hungary

2. Experience in drawing up off-site emergency plans, involvement of the public

Mr. Ernst Berger, Head of Section on Safety of Installations, Agency for the Environment, Forests and Landscape, Switzerland

3. Experience in setting up warning and alarm systems in transboundary catchment areas

Mr. Jiri Balej, Chairman of the Working Group on Accidental Water Pollution of the International Commission for the Protection of the Elbe, Czech Republic

4. Assessment of potential hazard sources to prevent and respond to industrial accidents in Hungary

Mr. Pál Fehérváry, Head of Department for Environmental Safety and Health, Ministry of the Environment, Hungary

5. Case study – Accidental cyanide spill and pollution of the Tisza River

Ms. Katalin Zsuga, biologist, Middle Tisza Environment Protection Inspectorate, Hungary

Annex II

CONCEPT OF THE EXERCISES

1. Two field exercises were held on the second day of the workshop at locations near the town of Tiszaújváros.
2. The following organizations participated in the exercises:
 - (a) Northern Hungarian Directorate for Water Management;
 - (b) Directorate for Disaster Management of the county of Borsod-Abaúj-Zemplén;
 - (c) Inspectorate for Environmental Protection of the county of Borsod-Abaúj-Zemplén;
 - (d) National Ambulance Service (Tiszaújváros, Miskolc)-
 - (e) Local Defence Committee of Tiszaújváros;
 - (f) Civil Defence Office and Organizations of Tiszaújváros;
 - (g) Professional Fire Brigade of the Local Government of Tiszaújváros;
 - (h) State Public Health and Medical Officers, Service of Tiszaújváros;
 - (i) Central Police Station of the city of Tiszaújváros;
 - (j) River Police of Tiszaújváros;
 - (k) Special Reconnaissance and Rescue Group of the city of Miskolc;
 - (l) "Fire Fighting and Technical Rescue" Ltd., Tisza Chemical Works Co. Ltd.

Exercise 1

3. Location: Tisza Chemical Works Co. Ltd., Tiszaújváros - Borsod County
4. Accident scenario:

There was a leak on the entering stub of the C4- C5 raw material evaporating heat-treating fraction at the 16th level of the decomposing furnace of the Olefin Plant of the Tisza Chemical Works Co. Ltd., which led to a gas explosion and a fire. Four persons were seriously injured. The Major Accident Management Centre of the site raised the alarm and notified the company's fire-fighting and technical rescue groups. As part of the exercise, company employees and the local population were warned. The Major Accident Management Centre started its operation. Besides the fire-fighting and technical hazard elimination, the company's fire-fighting and technical rescue groups and disaster management professionals took continuous measurements on- and off-site. The injured received first aid. Safety technology experts began to close the hazardous pipe structures of the installation. Professional fire-

fighters arrived. The surrounding installations were sealed off to avoid any domino effect. The injured were transferred. The cause of accident was identified and decontamination measures were taken.

5. Main elements of the exercise:
 - (a) Management of the response to an accident that occurred due to an explosion in a hazardous establishment;
 - (b) Hazard elimination;
 - (c) Technical rescue;
 - (d) Provision of medical assistance to injured persons;
 - (e) On-site test of the relevant siren and communication systems.

Exercise 2

6. Location: the premises of the Aquatic Sports Club (“Power Station” housing estate), Tiszaújváros

7. Accident scenario:

A lorry carrying barrels of fuel oil overturned into the Tisza river together with its cargo at the pontoon bridge of Tiszadob. The water protection service and local civil defence organizations cleaned up the river together. The Inspectorate for Environmental Protection of the county took environmental measurements.

8. Main elements of the exercise:
 - (a) Accidental water pollution, identification of pollutant;
 - (b) Localization of pollutant;
 - (c) Neutralisation of the pollutant;
 - (d) Clean-up.