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

Fourth meeting
Rome, 15–17 November 2006
Item 11 (b) of the provisional agenda

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

Fourth meeting
Bonn (Germany), 20–22 November 2006
Item 6 (e) of the provisional agenda

**REPORT ON THE IMPLEMENTATION OF THE CONCLUSIONS AND
RECOMMENDATIONS OF THE SEMINAR ON THE PREVENTION OF CHEMICAL
ACCIDENTS AND LIMITATION OF THEIR IMPACT ON TRANSBOUNDARY WATERS**

Submitted by the Co-Chairpersons of the Joint Expert Group

1. The Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the Conference of the Parties to the Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention) have endorsed the conclusions and recommendations of the Seminar on the Prevention of Chemical Accidents and Limitation of Their Impact on Transboundary Waters (CEP/WG.4/SEM.1/1999/3 – MP.WAT/SEM.1/1999/3), held in Hamburg (Germany) in 1999.

2. When adopting the Hamburg conclusions and recommendations, the governing bodies of the Water Convention and the Industrial Accidents Convention requested Parties representing market economies to report back on their implementation by 2005 (see ECE/CP.TEIA/2 and ECE/MP.WAT/5).

3. This report is based on answers to a questionnaire on implementation of the Hamburg seminar recommendations in market-economy countries of the UNECE region. The questionnaire, based on a reporting format agreed on by the Joint Expert Group, sought information on four policy areas: wastewaters, fire protection, trans-shipment and flood protection. For each area, countries reported on current legislation, provisions and guiding principles as well as on experiences, obstacles and lessons learned.

4. Out of the 26 countries contacted, only 14 responded: Austria, Belgium, the Czech Republic, Estonia, Finland, Germany, Hungary, Monaco, the Netherlands, Norway, Poland, Slovakia, Sweden and Switzerland. Following is a summary of progress in the implementation of the Hamburg recommendations in these countries since 1999.

I. WASTEWATERS

5. Recommendation on the prevention of accidental water contamination from wastewater: *“The Parties to both Conventions should ensure that in the next five to ten years the operators of hazardous activities in the catchment area of transboundary water bodies implement measures to prevent accidentally contaminated wastewater from finding its way – directly or indirectly – into waters.”*

A. Legislation

6. National legislation is usually enforced. Relevant legal requirements based on international legislation (e.g. EC Directive 96/82/EC, Seveso II) are in force. All requirements are incorporated into national legislation (e.g. the German Major Hazard Ordinance, the Swiss Ordinance on Major Accidents, various Water Acts). The permitting procedure is well established for hazardous installations with the potential to pollute water resources. Permits can be obtained only if the preventive measures required by the competent authorities and all preventive installations are in place. In the permit, the authorities regulate what should be done in case of malfunction or accident to avoid serious water contamination.

B. Provisions and guiding principles

7. Guiding documents and recommendations are widely available. Retention facilities are installed at the hazardous installations. Regular supervision by the competent authorities is common practice. Examples include the relevant recommendation of the International Commission for the Protection of the Rhine and the application of environmental management systems.

C. Experience, lessons learned and obstacles

8. The main reported obstacle involves the implementation of legislative requirements for small and medium-size enterprises; because of limited financial resources, these companies lack early-warning and retention facilities.

9. Examples of good practices include the provision by countries of a sound financial supporting basis, increased enforcement of legal requirements, and recommending that facilities to which the EC Seveso II Directive does not apply be placed in the moderate risk category

II. FIRE PROTECTION

10. Recommendation on fire protection: *“The Parties to both Conventions should ensure that in the next five to ten years the operators of hazardous activities in the catchment area of transboundary water bodies implement measures to prevent fire fighting water finding its way – directly or indirectly – into waters.”*

A. Legislation

11. The requirements are usually included in national regulations. Permitting procedures take into account the prevention of pollution from fire-fighting water discharges into natural bodies of water. This pollution source must be considered when assessing environmental risks related to handling and storage of dangerous chemicals. The results from these assessments must be included in licence applications. Emergency planning and training are required (e.g. the Polish Act on National Fire Brigades¹).

B. Provisions and guiding principles

12. To receive a permit, hazardous installations must have fire alarm plans. Regular training exercises are part of the plans. Regular supervision and control of the fire water retention facilities are in place. An example is the International Elbe Commission's Recommendation for the Retention of Fire Waters.

C. Experience, lessons learned and obstacles

13. The main reported obstacles are that (a) the capacity of retention facilities is not sufficient, and (b) the best fire fighting methods currently available are not sufficiently taken into account.

14. Examples of good practices include regular training of fire brigades, the provision of fire-fighting tools, education on the environmental aspects of firefighting, and the availability of fire alarm plans.

¹ Journal of Law 2002. No. 147, item 1230.

III. TRANS-SHIPMENT

15. Recommendation on trans-shipment: *“The Parties to both Conventions should ensure that in the next five to ten years the operators of hazardous activities in the catchment area of transboundary water bodies implement measures to prevent substances hazardous to water accidentally finding their way – directly or indirectly – into waters.”*

A. Legislation

16. Regulations concerning the trans-shipment of hazardous substances and taking into account all relevant international regulation are in place. Trans-shipment activities of hazardous substances are included in licence procedures. In many countries installations are classified based on the quantity and the hazard classification of the handled substance. Contingency planning is obligatory for these facilities.

B. Provisions and guiding principles

17. There is regular revision of contingency plans and equipment. In some places automatic safety installations are in place. Regular training is obligatory. Examples are the International Rhine Commission Recommendation for the Safety of Trans-shipment, the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) and the European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID).

C. Experience, lessons learned and obstacles

18. The main obstacle is the lack of financial resources.

19. Examples of good practices are the installation of automatic shut-off safety systems, the application of environmental management systems, and the use of frequent inspections.

IV. FLOOD AREAS

20. Recommendation on flood areas: *“The Parties to both Conventions should ensure that in the next five to ten years the operators of hazardous activities in the catchment area of transboundary water bodies ensure that containers and parts of installations with large quantities of substances hazardous to water are protected against buoyancy, avulsion and damage from floating material.”*

A. Legislation

21. Flood prevention legislation focusing particularly on hazardous installations is in place. During the permitting procedure, especially for the location of new industrial installations, authorities are including floods as a potential hazard source. Floods must be considered as a risk factor in assessing risks involved in the storage and handling of dangerous chemicals.

B. Provisions and guiding principles

22. Flood protection action plans are developed at the local, national and river basin commission levels. International cooperation is necessary. Hazardous activities are not allowed in flood plains. Flood mapping is a new tool for decision makers. Examples are the flood protection methodologies of the European Union, recommendations on requirements for industrial plants containing water-polluting substances in areas with a risk of flooding of the International Commission for the Protection of the Danube River and of other international river commissions.

C. Experience, lessons learned and obstacles

23. Small installations can cause major problems; risk assessment is sometimes missing for these facilities. Extreme weather conditions and the effects of climate change are not always taken into account during the risk assessment and permitting procedures. One obstacle is the lack of technical experts in small local communities in charge of permitting procedures.

24. As an example of good practices, flood mapping is recommended for identifying endangered installations.

V. OVERALL CONCLUSIONS AND RECOMMENDATIONS

25. The legislation is in most cases well developed, and relevant international legislation is incorporated into national systems. The permitting procedure, the drafting of guiding documents, the provision of regular supervision and the preparation of contingency plans are part of the process.

26. For UNECE member countries, the overall legislative basis is provided by the implementation of the Water Convention and the Industrial Accidents Convention. In addition, EU member states have implemented the Hamburg recommendations through the incorporation of the EC Seveso II Directive and the EU Water Framework Directive. The International River Commissions of the Rhine, Elbe, Oder and Danube rivers have developed specific guidelines. These guidelines could be adopted as minimum required measures for harmonizing standards in the UNECE region.