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Training session on integrated approaches to major  
hazard prevention organized for eligible countries of  
Eastern-Europe, Caucasus and Central Asia and  
South-Eastern Europe

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**REPORT****Introduction**

1. The training session on integrated approaches to major hazard prevention was held from 11 to 13 February 2009 in Prague. It was organized within the framework of the implementation phase of the Assistance Programme for countries of Eastern Europe, Caucasus and Central Asia (EECCA) and South-Eastern Europe (SEE) pursuant to a decision made by the Conference of the Parties at its fifth meeting (Geneva, 25–26 November 2008; ECE/CP.TEIA/19, paras. 50 (c)(iii) and 78 (i)).
2. The Ministry of Environment of Czech Republic and the Occupational Safety Research Institute organized the training session. The Netherlands provided funds to support the participation of experts from EECCA and SEE countries.

## **I. OBJECTIVES**

3. The key objective of the training session was to discuss and brainstorm possible improvements to administrative approaches in EECCA and SEE countries with respect to major hazard prevention and crisis management, in particular in the light of the experience of Czech Republic in this regard.
4. During the training session, participants had the opportunity:
  - (a) To discuss problems encountered by authorities endeavouring to ensure safety at hazardous installations;
  - (b) To examine the Czech experience, and to discuss if and how, through its integrated approach, certain problems could be eliminated;
  - (c) To discuss inspections in an integrated approach;
  - (d) To learn about and share good practices in cross-border cooperation with respect to safety at hazardous installations.

## **II. PARTICIPATION**

5. The training session was attended by representatives of the following authorities or institutions from EECCA and SEE countries: Armenia – the Ministry of Nature Protection, the Regional Division of the State Environmental Inspectorate of the Ministry of Nature Protection and the Armenian Rescue Service; Azerbaijan – the Ministry of Ecology and Natural Resources; Croatia – the Ministry of Environmental Protection, Physical Planning and Construction; Georgia – the Ministry of Environment Protection and Natural Resources, the Centre for Monitoring and Forecasting of the Ministry of Environment Protection and Natural Resources, the Georgian Environmental Inspectorate of the Ministry of Environment Protection and Natural Resources, and the Emergency Management Department of the Ministry of Internal Affairs; Kazakhstan – the Ministry of Emergency Situations and the Pavlodar Regional Department of Hazard Prevention; Republic of Moldova – the Civil Protection Inspectorate of the State Department of Emergency Situations, the State Ecological Inspectorate, the Agency for Standardization and Metrology, and the State Hydrometeorological Service; Serbia – the Ministry of Environmental and Spatial Planning and the Ministry of Interior; the former Yugoslav Republic of Macedonia – the Ministry of Environment and Physical Planning; and Ukraine – the Ministry of Environmental Protection and the Ministry of Emergencies and Affairs of Population Protection from the Consequences of Chernobyl Catastrophe.
6. The workshop was supported by experts from the Czech Republic, Germany and Poland, and by the Convention secretariat.

### **III. OPENING, WELCOME ADDRESS, SETTING THE SCENE**

7. Mr. Milos Palecek, Occupational Safety Research Institute, and Mr. Pavel Forint, Ministry of Environment of the Czech Republic, chaired the meeting.
8. Mr. Karel Blaha, Deputy Minister and Director-General of the Directorate of Technical Protection of the Environment, Ministry of Environment of the Czech Republic, welcomed the participants and experts to Prague and expressed his satisfaction with the organization of a training session on such an important topic.
9. A representative of the secretariat also addressed the meeting. He invited active participation, as this was the best means for reaching the session's objectives.

### **IV. PROGRAMME**

#### **A. Session I: Administrative structures for addressing major hazard prevention**

##### **1. Set of procedures, roles of authorities versus shortcomings and limitations**

10. The training session began with presentations on and discussion of the difficulties the Czech Republic had to overcome when building its system for addressing major hazard prevention. Attention was drawn to following aspects:
  - (a) Legislation is the basis for carrying out the work, as with no legal obligations operators could refuse to implement the safety measures;
  - (b) Legislation must be established in such a way that it allows enforcement, i.e. the system should reward those complying with the obligations, for instance by lower insurance rates for operators applying high safety standards;
  - (c) Cooperation, coordination and understanding between authorities, together with legislation, are important pillars for introducing safety;
  - (d) Coordination and cooperation are usually easier to achieve when one of the authorities takes the lead;
  - (e) Promoting a safety culture and mutual trust among all stakeholders is important in building an effective major hazard prevention system;
  - (f) The terminology used might need to be unified, so that all the stakeholders can cooperate effectively with one another.
11. The participating experts concluded that their countries faced problems regarding the aspects mentioned above. Often these problems hindered the achievement of improvements to major hazard prevention.

## **2. Integrated approach for major hazard prevention in the Czech Republic**

12. In the second part of session I, the Czech system established for major hazard prevention was presented and discussed in detail. Attention was focused on: (a) the Czech legal system; (b) the involvement of authorities; (c) safety culture; and (d) assessment of documentation.

13. Czech legislation for major hazard prevention is composed of a main Act (59/2006), which sets out general obligations and responsibilities for the following: (a) classification of hazardous installations; (b) assessment of risk; (c) safety programmes; (d) safety reports; (e) insurance; (f) information for the public; (g) emergency planning; and (h) inspection. This Act is supported by government decrees, which provide the instructions and details for complying with it. In turn, these are supported by guidelines, which provide recommendations for implementing the legal provisions.

14. The many tasks related to major hazard prevention are shared between different authorities. In the Czech Republic, these authorities are the Ministry of Environment, the Ministry of Interior, the Mining Authority, the Environmental Inspectorate, the Labour Inspectorate and the regional authorities for fire protection, as well as the public health services.

15. The Ministry of Environment was designated as the lead authority for State supervision in the area of major hazard prevention. To this end, the Ministry keeps a record of all safety documentation and inspection reports of major hazard installations drafted with the involvement of the relevant authorities. Keys to effective joint work are communication, coordination, consultations and education. Support from information systems such as GIS<sup>1</sup>, databases with registries of establishments, and databases of documentation are important.

16. The Czech authorities dealing with major hazard prevention pay much attention to the adequate application of safety engineering, but also to seeing that safety culture is introduced at the industrial sites. The authorities play a role in promoting safety culture by showing operators that investing in safety can bring many benefits to companies, inter alia by improving a company's image.

17. Authorities' assessment of safety documentation is among the most important tasks in major hazard prevention work. Safety documentation needs to prove that the required measures have been taken to properly assess associated risk and to spell out the proper measures for risk reduction. Poor risk assessment and inadequate implementation of safety measures should be identified and eliminated. To achieve this, the staff performing the evaluations must be properly trained.

18. Participants showed a great interest in how the legal basis was created for major hazard prevention in the Czech Republic. They requested the Czech colleagues to make available an English text of the Act as well as of the guidelines elaborating the safety topics, especially regarding the analysis and evaluation of risk of major accidents and safety reports.

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<sup>1</sup> Geographical information system.

19. Participants appreciated the cooperation and communication present in the Czech system, and requested information on how to create similar legal bases for developing regulations responsive to country-specific needs.

**B. Session II: Inspections in the integrated approach in the Czech Republic**

20. Session II focused on (a) the inspection regime at the major hazardous installations in the Czech Republic and (b) a case study of a recent industrial accident, as well as lessons learned from the accident that initiated further changes to the Czech system.

21. Inspections in the Czech Republic are performed in accordance with Act 59/2006 and government decrees, following yearly inspection plans approved by the Ministry of Environment. The Czech regulations also foresee performing unplanned or unannounced inspections. These are carried out in the case of accidents and complaints and also when verification is needed for effective implementation of safety measures or in connection with a specific risk.

22. The inspections are carried out jointly by all authorities responsible for major hazard prevention. Each authority oversees the areas of its specific expertise and submits its findings and recommendations to the inspection report finalized by the Czech Environmental Inspectorate.

23. The inspections concentrate on reviewing the safety measures adopted at installations as well as their conformity with the safety reports, safety programmes and emergency planning, including adequate training and knowledge of personnel. Inspections require a full understanding of existing safety documentation and for a conclusion of whether the risks were underestimated in the documentation, especially in the view of extraordinary situations.

24. The importance of the inspections was clearly shown to participants through a case study of a recent accident at Draslovka Kolin. The accident happened a few weeks after authorities approved the safety documentation and the facility received an ISO<sup>2</sup> certificate.

25. The accident happened in extraordinary circumstances (low temperatures) not foreseen in the safety documentation when assessing the possible risk. The cold weather caused technological malfunctions, due to which cyanide escaped from the facility. In addition, this remained unnoticed by the facility's personnel, a fact which revealed operational failures and a lack of adequate knowledge.

26. The accident was an important lesson learned for the authorities. It made them realize that further strengthening of safety requirements was needed. To this end, new regulations were introduced following the accident, which obligated operators to include in the safety reports descriptions of possible non-standard situations and the risks associated with them. These could refer to extreme weather conditions or extensive maintenance work. It is also required that all

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<sup>2</sup> International Organization for Standardization.

small incidents within facilities are adequately analysed and reported, together with the appropriate safety changes made to avoid such incidents in the future.

27. At the same time, the accident showed some gains in the building of a safety culture. This could have been seen in the involvement of the public, which reported the dead fish in the Elbe River caused by the escape of cyanide. The public prompted the authorities to investigate and to identify both the source of possible pollution and the polluter.

28. The attitude of the operator, once it became apparent who had caused the accident, also evidenced achievements in introduction of safety culture. The operator cooperated actively with the authorities (a) to mitigate effects of the accident, (b) to compensate for the losses, and (c) to implement technical and operational improvements. The operator voluntarily demonstrated the improvements to the public in order to rebuild the image of a safe enterprise.

29. The participants appreciated the extensive discussion of this case-study accident and the lessons learned. They also showed an interest in finding out more about the mechanisms for cooperation and communication during the mitigation and accident investigation.

### **C. Session III: Cross-border activities**

30. Session III focused on cross-border activities. Czech, Polish and German experts presented the benefits of: (a) international cooperation, including the sharing of good practices; and (b) cooperation with neighbouring countries with a view to improving the joint management of transboundary emergencies. The mechanisms to build effective cross-border response were of great interest to the participants. They appreciated hearing about good practices and were able to discuss the organization of cross-border response simulations, their evaluation and the implementation of such recommendations. At the same time, they recognized a need to support their countries' organization of field exercises with back-to-back training sessions focused on discussing existing limitations in crisis management.

## **V. CONCLUSIONS**

31. Participants expressed their appreciation to the Czech authorities for presenting and discussing in depth the system for major hazard prevention. They also thanked the Czech, German and Polish experts for sharing their experience related to crisis management.

32. Participants agreed that there was a need for learning from good practices and introducing solutions for better harmonizing the work of the authorities involved with major hazard prevention and crisis management. This would be easier after the training session, during which a number of different solutions and their usefulness had been presented. Participants agreed that they would continue the brainstorming started during the training session with their colleagues and would explore country-specific solutions. This would help establish better cooperation and coordination and in turn would improve prevention and crisis management.

33. A number of participants pointed out that their countries' legislation needed further improvement to enable more integrated solutions. A starting point for some countries might be

eliminating requirements that created an overlapping of responsibilities and functions between authorities, leading to competition rather cooperation and coordination.

34. The situation vis-à-vis effective cooperation and coordination between authorities differed between participating countries. In some, there were already certain elements in place, but the relevant by-laws needed to be implemented or amended. In others, the situation was at an earlier stage and needed more work to effectively address major hazard prevention and crisis management.

35. Some participants reported that working groups had been established in their countries. These groups, composed of the different authorities involved in implementing the Convention, met regularly to coordinate steps to strengthen implementation and/or ratification of the Convention. The good practices discussed during the training sessions would be analysed in the working groups and ways forward would be investigated.

36. Participants from countries in which no working groups had been established reported that they would look into the possibility of introducing mechanisms to coordinate future steps for the Convention's implementation and better coordination of major hazard prevention.

37. Participants expressed concerns related to the level of safety culture among the operators in their respective countries. They agreed that safety culture was crucial to reaching an effective level of management vis-à-vis the prevention of major industrial accidents. Nonetheless, they saw difficulties in implementing it, given the current legal and institutional frameworks in their countries.

38. The training session contributed to creating an awareness of the sources of these difficulties. It was evident that some could be resolved by the countries themselves using the knowledge gained during the session, for example:

(a) Identification of legal provisions might be useful with respect to additions to national legislation made possible by studying the Czech Act on major hazard prevention;

(b) Harmonization of work between authorities, through a joint drafting of operational procedures, which could apply a unified terminology and build trust between them;

(c) Initiation of discussions about entrusting one authority with leading the coordination of major hazard prevention work.

39. Participants also agreed that assistance might be needed in terms of:

(a) Drafting legislation;

(b) Reviewing legislation and/or operational procedures;

(c) Supporting an organization of activities aimed at strengthening safety culture, (e.g. facilitating training for trainers with respect to assessment of safety documentation,

participating in inspections and helping to evaluate the results, supporting the organization of response simulations).

40. Participants also concluded that they might benefit if they could compare their achievements against benchmarks of levels of implementation of the Convention, or follow a list of indicators and criteria. They expressed their appreciation to the Bureau of the Conference of the Parties that such work had been initiated.

## **VI. CLOSING OF THE TRAINING SESSION**

41. The representative of the secretariat expressed its appreciation to the Czech organizers, in particular to Mr. Palecek and Mr. Forint, for the excellent organization of the session, and thanked the participants for their active involvement. He also encouraged participants to keep working on the issues addressed during the training session when they were back in their home countries, and to establish or invite the cooperation of the relevant authorities in major hazard prevention and crisis management. He invited participants to keep the secretariat informed about the actions taken and the progress made, especially through updating the action plans. He reminded them that the action plans were reviewed by the Bureau both to evaluate progress and to discern the priority needs of countries.

42. Mr. Forint thanked the participants for their attention and the experts for their professionalism. He also thanked the secretariat for its assistance. Mr. Forint closed the meeting.



## Annex

## TRAINING SESSION PROGRAMME

**PART I: Administrative structures for addressing major hazard prevention:****Set of procedures, roles of authorities versus shortcomings and limitations**

- (a) Set of procedures (legislation, standards) and roles of authorities prior to implementing integrated approach to major hazard prevention in the Czech Republic – Mr. Milos Palecek (Occupational Safety Research Institute)
- (b) Shortcomings and limitations hindering the attainment of better results in major hazard prevention (implementation of the Convention and the Seveso II Directive) prior to implementing integrated approach – Mr. Pavel Forint (Ministry of Environment)

Presentation of the film, “Prevention of serious industrial accidents”

**Integrated approach for major hazard prevention in the Czech Republic**

- (a) Legal and administrative framework within the Czech integrated approach for major hazard prevention (implementing the Convention and Seveso II Directive) – Act 59/2006 and supporting documents – Ms. Martina Prazakova, Mr. Jan Bumba (Occupational Safety Research Institute)
- (b) Roles of owners/managers and employees of hazardous activities arising from the legislation – Mr. Vilem Sluka (Occupational Safety Research Institute)
- (c) Safety documentation and its evaluation – Mr. Sluka
- (d) Roles of the Ministry of Environment, inspection bodies and local authorities within the integrated approach for major hazard prevention in the Czech Republic – Ms. Martina Prazakova
- (e) Education in the field of major hazard prevention – Ms. Martina Prazakova

Work in groups – questions and answers in view of the Czech experience in establishing its integrated approach for major hazard prevention

**PART II: Inspections within the integrated approach in the Czech Republic:**

- (a) Organization of inspections in the field of major hazard prevention in the Czech Republic – Ms. Zuzana Machatova (Ministry of Environment)
- (b) Planning and briefing on inspections – Ms. Martina Pazourova (Czech Environmental Inspectorate)
- (c) Labour inspection in the integrated approach – Mr. Jan Strouhal (Regional Labour Inspectorate)

Case study of the Draslovka Kolin hazardous facility – safety inspection, conclusions and lessons learned from the accident, and the inspection regime following the accident – Mr. Hynek Benes, Mr. Bohumir Ruzicka, Mr. Jaroslav Dusek (Czech Environmental Inspectorate)

Discussion on the case study

**PART III: Cross-border activities:**

- (a) Cross-border cooperation arising from the Convention – Mr. Lukasz Wyrowski
- (b) The importance of cross-border cooperation, including scientific and technological cooperation; benefits for the cooperating countries, Czech experience – Mr. Pavel Danihelka, Head, Laboratory of Risk Research and Management, Technical University of Ostrava
- (c) Organization of response exercises in the transboundary regions, benefits and good practice
  - (i) Polish perspective – Mr. Krzysztof Gielsa (Lower Silesia State Fire Service of Poland)
  - (ii) Czech perspective – Ms. Katerina Blazkova (Fire Rescue Service of the Moravian – Silesian Region, Dept. of Civil Protection and Emergency Planning)
- (d) Transboundary risk management; good practice from Commissions of Rhine, Elbe and Odra Rivers – Mr. Gerhard Winkelmann-Oei (Federal Environmental Agency of Germany)

**Questions and answers****Wrap-up from participants:**

Short presentations by representatives of EECCA and SEE countries participating in the training session, on lessons learned from the training and ways forward to further improve the process of identification of hazardous activities; input into the national action plans and their future execution

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