

# PREFACE

Hazardous waste has been identified as a major public health and environmental problem in Central and Eastern Europe. The severe degree of environmental degradation in the Region has resulted in human exposures to high levels of various pollutants: wastes, consisting of a broad spectrum of hazardous components, are particularly difficult to deal with. Since early 80's, there has been a growing need to approach this problem from a multidisciplinary perspective. In November 1993, a principal decision has been made to organize a workshop on hazardous wastes. Later on, after a broad discussion, following primary objectives and organizational strategies have been accepted:

- Recognize and evaluate the present situation in countries of Central and Eastern Europe; experts from Bulgaria, Hungary, Poland, Romania, Ukraine, Slovakia and Czech Republic will be asked for a comprehensive view on the problem; to facilitate the comparison among individual countries, an UN document entitled "HAZARDOUS WASTE: POLICIES AND STRATEGIES: NATIONAL PROFILE" will be recommended as a format of these presentations.

- Evaluate multidisciplinary approaches to exposure assessment, remediation practices and hazardous waste reduction technologies that may be applicable to the region. To reach this goal, individuals with different perspectives, including backgrounds in engineering, ecology, biomedical science and epidemiology will be invited, most of them from USA and Western Europe. Speakers should be encouraged to help to identify approaches which will provide the most effective immediate and long-term health and environmental benefits, and what policies need to be put in place to achieve this goal.

- Concurrent sessions will be devoted to three major groups of wastes relevant in the Region: metals, persistent organic compounds and healthcare wastes; in each session, a short communication will introduce the topic and prepare the floor for an extensive discussion of related problems; assigned rapporteurs will monitor these discussions and present some general conclusions on subsequent adjourn session.

- A panel discussion on issues related to the communication of the risks connected with hazardous wastes to the public will be implemented to highlight major problems. Two invited lecturers will open the session and then the panelists should outline major problems in the countries of Region.

- A one-day site visit will be included to enable the participants to see some actual problems of waste handling and treatment in the real life.

The Organizing Committee has decided to keep a "chamber" format of the workshop (40 participants at maximum) in order to establish effective working conditions. Despite of a great effort, the presence of all experts in the countries could not be granted. To make the messages of the workshop available to a broad circle of public interested, principle sponsors have agreed to publish all contributions in this Supplement.

Participants have met at the opening reception on October 2.

After opening addresses of principle organizers and sponsors, the scientific program has been started by an introductory lecture followed by contributions of the representatives of international bodies, namely WHO-EURO Bilthoven and Nancy and UNEP-Basel Convention. These lectures have set a baseline for subsequent sessions devoted to National Reports.

Nearly all authors have followed the general outline and framework suggested by the organizers. Most speakers have paid a great attention to give updated figures, they have evaluated the priorities in their countries and also critically discussed the influence of the economical transformation, occurring currently in all communities of Central and Eastern Europe (privatization, decentralization). All of them have unanimously underlined that the principal political changes do affect the present situation in the field of hazardous waste. The importance of new legislation has been widely recognized. Legislative measures and steps already taken differ considerably in individual countries. It seems to

be granted that all countries are aware of the seriousness of the problem. Conclusively, all countries express the willing to joint the international bodies and agreements (i. e. Basel Convention). Many international programs have been already introduced both at the level of basic research or in solving specific problems. A broad international cooperation is foreseen.

Invited lecturers have dealt with basic issues of exposure assessment, fate and transport and bioavailability, environmental effects and the impact on humans, remediation practices and technologies. As far as all contributions are given in full texts in this volume, there is no need to make any general evaluation. All authors, however, deserve the acknowledgement for excellent presentations.

Concurrent break-out groups were intended to provoke a deeper insight on topics of particular importance in the Region. While wastes containing toxic metals (Group I) and persistent organics (Group II) were understood to be very important worldwide, certain doubts have been expressed regarding the healthcare wastes (Group III). This kind of waste, having a lesser importance in the US, appeared to be of a considerable concern in Europe. Interestingly, the geographic difference between Europe and US seems to be more distinct in comparison with that between Western and Eastern part of the Old World. Careful short communications and conclusions given by rapporteurs also deserve the acknowledgement.

The Panel on risk communication issues has been introduced by two lectures identifying crucial and neuralgical points. Subsequent informal discussion has revealed both the importance of the subject and distinct differences existing in respective countries. In Central and Eastern Europe, needs for a broad education in this field are obvious; preliminary contacts between US and European participants may bring some progress in the near future. The skillfulness of the chairman and appointed panelists has led to mutual understanding in the audience.

Among several options for the field trip, the state enterprise DIAMO-GEAM in Dolní Rožínka located in Central Moravia (50 km northwest of Brno) has been chosen. Besides uranium mining and production of uranium concentrates, this company runs an extensive program to detoxify waste containing toxic metals (e.g. electroplating sludges). Participants met the management of the company at an informal meeting; a video presentation gave the comprehensive information about technologies used, including the evaluation of health and environmental impacts of the processing. A guided tour through the facilities showing all parts of the factory has been followed by friendly and fruitful discussion. The Organizing committee wish to express many thanks to all managers of DIAMO-GEAM for their exceptional anticipation and for all arrangements of the visit.

All participants were given a brochure describing all activities of the company in detail. Unfortunately, the extend of this material does not allow to present it in this volume. The Editorial Board of Central European Journal of Public Health is considering the possibility to publish it in one of regular volumes in 1995.

In conclusion, the workshop has been found very helpful in evaluation of present problems in the field of hazardous wastes in Central and Eastern Europe. The intensive exchange of the knowledge and experience has occurred to improve the understanding of the most important issues in the Region and, concerning the USA and Western Europe, to assure better aiming of scientific or financial support. The Organizing Committee has agreed to continue the collaboration. Future meetings will be focused on more specific topics (i.s. remediation, waste treatment technologies, etc.) Attention will be paid to educational programs, particularly to risk management and communication. A detailed report on the hazardous waste state-of-art in Central and Eastern Europe, based on the knowledge gathered at the workshop, is in preparation.

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