

GUEST EDITORIAL

The papers in this special issue represent the state-of-the art technology for assessing, monitoring and controlling problems at hazardous waste sites. This issue addresses topics applicable both to operating facilities and to facilities requiring remedial techniques.

Since the passage of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), attention to the problems associated with all aspects of hazardous waste has been highlighted by the media and elected officials. Out of this attention, a new industry focusing on the assessment, monitoring and control of hazardous waste problems has emerged. Conventional solutions to the increasing and more complex problem of managing hazardous waste have been found inadequate in many cases. Over the past five years, removal options have greatly outweighed treatment options. With the identification of more problem sites, solutions to controlling waste must be orientated toward on-site options. This might include in-situ or other on-site treatment alternatives such that the waste does not require removal from the site or that smaller, concentrated volumes of waste are removed for destruction.

The papers in this special issue present a technical overview of some alternative/emerging technologies developed or improved over the past years to address current approaches for assessing, monitoring and controlling problems at hazardous waste sites.

Several papers addressing control technologies with emphasis on liquid waste treatment, specifically groundwater and leachate treatment, are included. One paper addresses thermal destruction technologies. Another reviews stabilization/solidification technologies. Two papers address storage and containment. A comprehensive paper on dioxin has been developed to specifically address the high hazard waste issue. Air emissions are addressed in a single paper. A special article discussing liabilities associated with clean-up activities is also included in this issue.

The editors hope that this broad mix of subjects will provide an up-to-date and accurate summary of approaches for addressing the hazardous waste problem. While these papers report on some advancing technologies, others are at various stages of development. We hope that this issue, which is only a beginning, will lead to further detailed expositions as the state-of-the-art progresses. We trust that this series of papers will stimulate the reader to explore further solutions to these critical challenges.

We would like to thank each author and reviewer for their contribution to the Journal. Special thanks also goes to Elsevier Science Publishers and Professor Gary Bennett for providing us with the opportunity to develop this special issue.

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