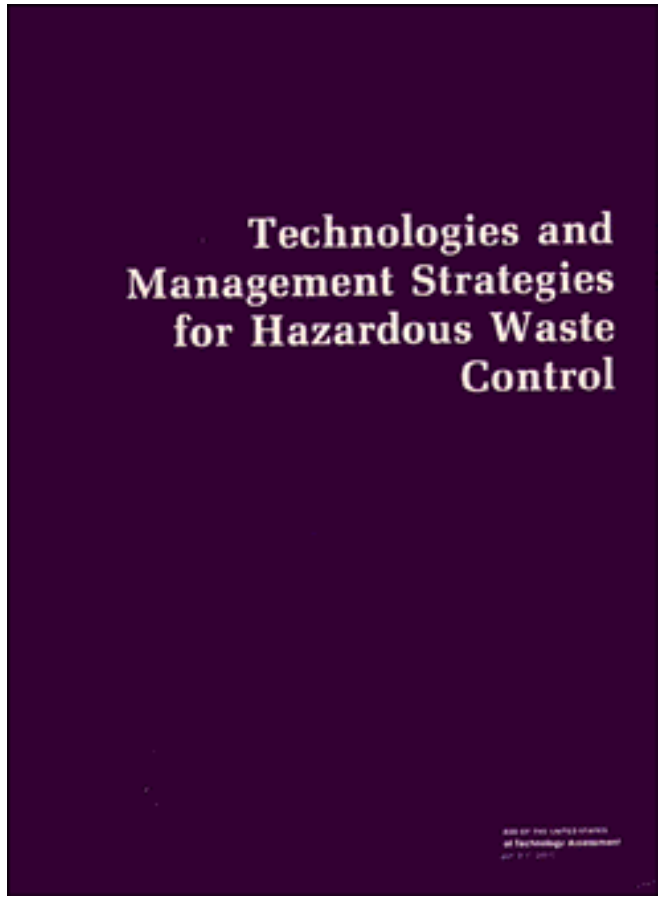
Technologies and Management Strategies for Hazardous Waste Control

March 1983

NTIS order #PB83-189241



Library of Congress Catalog Card Number 83-600706

For sale by the Superintendent of Documents,
U.S. Government Printing Office, Washington, D.C. 20402

Foreword

This report presents the analyses, findings, and conclusions of OTA'S study of the Federal program for the management of nonnuclear industrial hazardous waste * —an issue that has now reached national prominence and widespread congressional attention. OTA'S findings and conclusions concerning the technical components of the Federal hazardous waste program complement current activities which have focused more on administrative problems and issues. Our work offers a number of opportunities, at this critical time, for examining solutions to national hazardous waste problems.

This report is the final product of a 3-year effort at OTA. During that time we have contributed extensively to committee deliberations on hazardous waste management—including such issues as Federal exemptions of hazardous waste from regulation, procedures used to select uncontrolled hazardous waste sites for attention under the Superfund legislation, the use and regulation of land disposal techniques, the adequacy of monitoring requirements for land disposal facilities, the adequacy of EPA's risk assessment analyses, and the potential for introducing the relative hazard levels of wastes into Federal regulations. For example, in November 1981 and in April and August 1982, OTA presented testimony to Senate and House committees concerning a number of technical problems in the implementation of Superfund. In April and June 1982, we provided extensive testimony to House and Senate committees on the regulatory exemption of hazardous wastes generated in relatively small quantities (less than 1 metric ton per month); and in July 1982, a staff memorandum was released on this issue. All bills currently being considered for the reauthorization of the Resource Conservation and Recovery Act address this small generator exemption issue which OTA examined in depth.

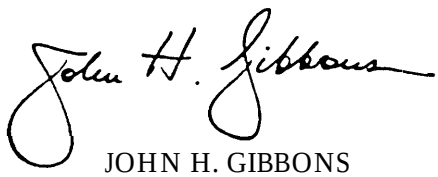
In conducting the study, OTA analyzed a wide range of views—from the technical community, industrial sectors which generate hazardous waste, the waste management industry, the environmental community, State and local officials, Federal agencies, and the lay public. As a result of that effort, OTA identified four policy options—beyond maintaining the current Federal program—which could form the basis for an immediate and comprehensive approach to protecting human health and the environment from the dangers posed by mismanagement of hazardous waste. One near-term option addresses the means to improve the technical effectiveness of the current regulatory structure. The other near-term option provides a nonregulatory or market approach to achieving a number of desired goals. Both of these options are compatible with the two longer term options, one of which deals with introducing waste and facility classifications into the regulatory structure, and the other which focuses on achieving greater integration of Federal programs, agencies, and statutes concerned with hazardous waste.

The assessment was originally undertaken at the request of the House Committee on Energy and Commerce. The focus of the study was to be on technological

*The term "hazardous waste" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may—(A) cause, or significantly contribute to an increase in mortality, or an increase in serious irreversible, or incapacitating reversible, illness; or (B] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

options for managing hazardous waste at operating facilities, technical means to address the problem of uncontrolled and possibly abandoned hazardous waste sites, and the technical adequacy of the Federal regulatory program.

OTA believes that we have provided analyses and policy options which can assist the current efforts to achieve an effective, equitable, and expeditious Federal program to protect the public from the dangers of hazardous waste. This is due in large part to the support, assistance, and cooperation received from many people representing a great diversity of viewpoints on the issues.



JOHN H. GIBBONS
Director

Hazardous Waste Control Assessment Project Staff

Lionel S, Johns, *Assistant Director,* OTA
Energy, Materials, and International Security Division

Audrey Buyrn, *Materials Program Manager*

Project Staff

Joel S. Hirschhorn, *Project Director*
Suellen Pirages, *Senior Analyst*
Karen Larsen, *Senior Analyst*
Iris Goodman, *Research Analyst*
William F. Davidson
Linda Curran (OTA Fellow)
Richard Parkinson
Frances Sladek
Mimi Turnbull

Administrative Staff

Carol A. Drohan Patricia A. Canavan

Individual Contractors

Christopher 'I'. Hill David M. Kagan James Farned David Burmaster David Corm
Suzanne Contos Kitty Gillman Gary Davis J. Stedman Stevens

Contractors

Engineering Science
Association of State and Territorial Solid Waste Management Officials
Citizens for a Better Environment
Sterling-Hobe
American Technology Management Consultants
Environmental Law Institute
Bracken & Baram
Clement Associates
Hazardous Material Control Research Institute
Stanford Knowledge Integration Laboratory
Development Sciences, Inc.
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Publishing Staff

John C. Holmes, *Publishing Officer*
John Bergling Kathie S. Boss Debra M. Datcher Joe Henson
Doreen Foster Donna Young

Hazardous Waste Control Assessment Advisory Panel

Sam Gusman, *Chairman,* Senior Associate, Conservation Foundation

David G. Boltz
Director, Solid Waste Control
Environmental Control Division
Bethlehem Steel Corp.

Frank Collins
Technology and Public Affairs Consultant

Stacy L. Daniels
Environmental Sciences Research Laboratory
DOW Chemical, U.S.A.

Jeffrey Diver
Senior Environmental Counsel
Waste Management, Inc.

Phillipa Foot
Department of Philosophy
University of California, Los Angeles

Morton R. Friedman
Director, Research
Hazardous Waste and Resource Recovery
N.J. Department of Environmental Protection

Thomas H. Goodgame
Director of Corporate Environmental Control
Research and Engineering Center
Whirlpool Corp.

Diane T. Graves
Conservation Chairman
Sierra Club, New Jersey Chapter

Rolf Hartung
Professor of Toxicology
School of Public Health
University of Michigan

Robert Judd
Director, California Office of
Appropriate Technology

Kenneth S. Kamlet
Director, Pollution and Toxic Substances
Division
National Wildlife Federation

Terry R. Lash
Independent Consultant

David Lennett
Attorney
Environmental Defense Fund

Janet Matey
Chemical Manufacturers Association

Randy M. Mott
Attorney
Hazardous Waste Treatment Council

John M, Mulvey
Director of Engineering Management Systems
School of Engineering/Applied Science
Princeton University

Delbert Rector
Chief of Environmental Services
Michigan Department of Natural Resources

Gerard Addison Rohlich
LBJ School of Public Affairs
University of Texas at Austin

Reva Rubenstein
Manager of the Institute of Chemical Waste
Management
National Solid Wastes Management
Association

Bernard L. Simonsen
Vice President
IT Corp.

George M. Woodwell
Director of The Ecosystems Center
Marine Biological Laboratory

NOTE: The Advisory Panel provided advice and comment throughout the assessment, but the members do not necessarily approve, disapprove, or endorse the report for which OTA assumes full responsibility.