

Superfund Strategy

April 1985

NTIS order #PB86-120425



Recommended Citation:

Superfund Strategy (Washington, DC: U.S. Congress, Office of Technology Assessment, OTA-ITE-252, April 1985).

Library of Congress Catalog Card Number *85-600527*

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

Foreword

The cleanup of hazardous waste sites under the Federal Superfund program has received much attention since Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act in 1980. As Congress debates reauthorization and possible expansion of the program, it is instructive to examine the “lessons learned” from the initial Superfund program.

The objectives of this OTA study are, as requested by the House Energy and Commerce Committee and the House Science and Technology Committee: 1) to understand future Superfund needs and how permanent cleanups can be accomplished in a cost-effective manner for diverse types of sites; 2) to describe the interactions among many components of the complex Superfund system; and 3) to analyze the consequences of pursuing different strategies for implementing the program. The study brings together a great deal of information on what can be learned from the initial Superfund program in order to improve it. In particular, the study focuses on the choice between continuing and improving the current program and adopting a new strategy on the basis of improved information. Such a new strategy has been defined and analyzed by OTA in considerable detail to provide Congress with an understanding of critical policy trade-offs,

As Congress and the Nation attempt to address major economic and budgetary issues, it is important to examine the economic as well as the environmental dimensions of the Superfund program. In the face of scientific uncertainties, limited information, fiscal constraints, public demands for cleanups, and real threats to health and the environment, how can Congress assure effective and efficient spending of Superfund resources? How can it determine how much to spend? How can it decide on whether to proceed with costly cleanups in the absence of national cleanup goals and with technologies that may not be effective? Is there a need to perceive Superfund as a long-term program that would require money to be spent in improving institutional capabilities and cleanup technologies?

Because of the strong emotions surrounding this major national environmental program, comprehensive analysis can assist all interested parties in their quest for technically sensible, cost-effective, and equitable solutions. The present reauthorization process provides an opportunity to examine the latest information and alternative strategies.

This report builds on the analyses and findings in OTA’s earlier work on hazardous waste issues, specifically our March 1983 report, *Technologies and Management Strategies for Hazardous Waste Control*. That report identified many of the problems with long-term containment of newly generated hazardous wastes; these problems are of direct relevance to the Superfund program, both in understanding the likely size of the uncontrolled hazardous waste site problem, and in examining technology choices for Superfund wastes,

A number of other OTA studies bear on the issues surrounding the Superfund program. Interested readers are referred to *Habitability of the Love Canal Area—A Technical Memorandum* (June 1983), *Protecting the Nation Groundwater From Contamination* (October 1984), *Technologies for Disposing of Waste in the Ocean* (in progress), and *Hazardous Materials Transportation: Technology Issues* (in progress).

The viewpoints of the private sector, community and environmental groups, academia, and State officials were sought in conducting this study. Many private and public groups cooperated in surveys performed for this study, and provided useful information. OTA thanks the many people—advisory panel members, workshop participants, reviewers, and consultants—who assisted in this work. As with all OTA studies, the information, analyses, and findings of the report are the sole responsibility of OTA.



JOHN H. GIBBONS
Director

Superfund Strategy Advisory Panel

Martin Alexander, *Chairman*
Cornell University

Kirk W. Brown
Texas A&M University

Morton Corn
School of Hygiene and Public Health
The Johns Hopkins University

Bonnie L. Exner
Colorado Citizens Action Network

Ted Greenwood
Columbia University

Linda E. Greer
Environmental Defense Fund

Robert Kissell
E. I. du Pont de Nemours & Co., Inc.

Gary Kovall
ARCO Petroleum Products Co.

Stephen Lester
Citizens Clearinghouse for Hazardous
Wastes

Adeline G. Levine
State University of New York at Buffalo

Randy Mott
Breed, Abbott & Morgan

Norman H. Nosenchuck
New York State Department of
Environmental Conservation

James T. O'Rourke
Camp Dresser & McKee, Inc.

James Patterson
Illinois Institute of Technology

Robert Repetto
World Resources Institute

Bernard L. Simonsen
IT Corp.

William A. Wallace
CH2M Hill

OTA Project Staff –Superfund Strategy

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

Audrey Buyrn, *Industry, Technology, and Employment
Program Manager*

Joel S. Hirschhorn, *Project Director*

Miriam Heller, *Analyst*

Karen Larsen, *Senior Analyst*

Kirsten Oldenburg, *Analyst*

William Sanjour*

Patricia Canavan, *Administrative Assistant*

Andrea M. Amiri, *Secretary*

Individual Contractors

Harold C. Barnett

James Cannon

George Trezek

James Werner

Chris Elfring, *Editor*

Irene S. Gordon, *Editor*

Contractors

Arthur D. Little, Inc.

Colorado School of Mines

Environ Corp.

ERM-Midwest

JRB Associates

TTEMD, Inc.

*On detail from EPA.

OTA Workshop—The Use of Innovative Cleanup Technologies for Superfund Remedial Action

Lowell C. Bowie
RoTech, Inc.

Jimmy W. Boyd
J. M. Huber Corp.

Pranas Budininkas
GARD, Division of Chamberlain
Manufacturing

Louis Flax
Lopat Enterprises

Linda Jones
Missouri Department of Natural Resources

Robert Kissell
E. I. du Pont de Nemours & Co., Inc.

Michael Model
MODAR, Inc.

M. L. Mullins
Monsanto Co.

Norman Nosenchuck
New York State Department of
Environmental Conservation

Greg Peterson
CH2M Hill

Stanley Sojka
Occidental Chemical Corp.

Theodore Taylor
NOVA, Inc.