

*Disposal of Chemical Weapons: Alternative  
Technologies*

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B A C K G R O U N D   P A P E R

# Disposal of Chemical Weapons

ALTERNATIVE  
TECHNOLOGIES



CONGRESS OF THE UNITED STATES  
OFFICE OF TECHNOLOGY ASSESSMENT

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# Foreword

The United States has pledged to destroy its entire stockpile of chemical weapons by the end of this decade. The U.S. Army has begun this process by building and testing a demonstration facility to disassemble and incinerate these weapons on Johnston Island, a small island in the mid-Pacific Ocean. After tests prove the concept, the Army plans to build similar facilities for the other chemical weapons now stored at each of eight sites in the continental United States.

Local community groups are opposed to the Army's current program at a number of these sites. The incineration of hazardous materials of all kinds has engendered concerns about public health impacts. Several organizations have suggested that technologies other than incineration may be safer and more appropriate for this program. Because of these factors, Senator Wendell H. Ford asked the Office of Technology Assessment to evaluate the status and availability of alternative technologies for destruction of chemical weapons in the U.S. stockpile as an adjunct to OTA's larger assessment of weapons dismantlement.

This background paper briefly describes the Army's chemical weapons destruction program, discusses the factors that could affect a decision to develop alternatives, discusses the alternatives, and illustrates the difficulty of gaining public acceptance of complex technical systems.

OTA appreciates the assistance and support this effort received from workshop participants, reviewers, and other participants. They provided valuable information that was critical to the completion of this study, and enabled OTA to develop a much more complete and accurate analysis. OTA, however, remains solely responsible for the contents of this report.

  
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# Disposal of Chemical Weapons: Alternative Technologies

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