

# Responding to Biological Hazards: The Effects of Chlorine Dioxide, Ethylene Oxide, Foam, and Irradiation on People and Cultural Property

## ABSTRACT

The recent incidents involving letters containing anthrax and the subsequent decontamination efforts have raised the need for biological hazard responses in emergency response plans. This paper discussed the nature of biological hazards, the organization of the emergency response, the various response methods, and the risks of these methods to people and cultural property. The Senate Hart Office Building emergency response was examined as a case study. Recovery of the building and its contents included decontamination by liquids, foams, and gases (including chlorine dioxide and ethylene oxide) as well as vacuuming. Treatment of the mail involved irradiation. Their effects on photographs, works of art on paper, manuscripts, books, and architectural drawings subjected to these response methods are discussed. In addition, other possible methods of recovery and prevention are described in relation to emergency response planning for cultural institutions.

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